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Vol. LXIX August, 1979 No. 1

Entered as Second Class Mail at the post office of
Clarion, Pennsylvania, under the Act of August 4, 1912
Published annually by the Board of Trustees

CLARION STATE COLLEGE

CLARION, PENNSYLVANIA
16214

CATALOG ISSUE

1980-81

MEMBER OF
AMERICAN ASSOCIATION OF COLLEGES FOR
TEACHER EDUCATION

MEMBER OF
AMERICAN ASSOCIATION OF STATE
COLLEGES AND UNIVERSITIES

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TEACHER EDUCATION

EDUCATIONAL ASSOCIATE OF
INSTITUTE OF INTERNATIONAL EDUCATION

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CLARION STATE COLLEGE

College Calendar

1979-80

Summer Sessions — 1979

First Five-Week Session

Session begins ..... Monday, June 11
Session ends ..... Saturday, July 14

Second Five-Week Session

Session begins ..... Monday, July 16
Session ends ..... Friday, August 17

First Semester, 1979-80

Registration for day & evening classes ..... Monday, August 27
Classes begin 8:00 a.m. ..... Tuesday, August 28
Labor Day Holiday ..... Monday, September 3
Thanksgiving Day Recess begins 5:50 p.m. ... Tuesday, November 20
Thanksgiving Day Recess ends 8:00 a.m. ..... Monday, November 26
Winter Commencement 2:00 p.m. ..... Sunday, December 9
Classes end 5:50 p.m. ..... Friday, December 14
Final Examinations begin 8:00 a.m. ..... Saturday, December 15
Final Examinations end 5:50 p.m. ..... Friday, December 21
Semester ends 5:50 p.m. ..... Friday, December 21
Semester grades due from faculty on or before Wed., January 2, 1980

Second Semester 1979-80

Registration for day & evening classes ..... Monday, January 14
Observation of Martin Luther King's
Birthday — no classes ..... Tuesday, January 15
Classes begin 8:00 a.m. ..... Wednesday, January 16
Academic Festival ..... Wednesday, February 27
Easter Recess begins 5:50 p.m. ..... Friday, March 28
Easter Recess ends 8:00 a.m. ..... Monday, April 14
Classes end 10:00 p.m. ..... Thursday, May 8
Reading Day ..... Friday, May 9
Final Examinations begin 8:00 a.m. ..... Saturday, May 10
Final Examinations end 5:50 p.m. ..... Friday, May 16
Commencement ..... Sunday, May 18
Semester ends ..... Monday, May 19

CLARION STATE COLLEGE

College Calendar

1980-81

Summer Sessions — 1980

First Five-Week Session

Session begins ..... Monday, June 9
Session ends ..... Saturday, July 12

Second Five-Week Session

Session begins ..... Monday, July 14
Session ends ..... Friday, August 15

First Semester, 1980-81

Registration for day and evening classes ..... Monday, August 25
Classes begin 8:00 a.m. ..... Tuesday, August 26
Labor Day Holiday ..... Monday, September 1
Thanksgiving Day Recess begins 5:50 p.m. ... Tuesday, November 25
Thanksgiving Day Recess ends 8:00 a.m. ..... Monday, December 1
Winter Commencement ..... Sunday, December 7
Classes end 5:50 p.m. ..... Friday, December 12
Final Examinations begin 8:00 a.m. ..... Saturday, December 13
Final Examinations end 5:50 p.m. ..... Friday, December 19
Semester ends 5:50 p.m. ..... Friday, December 19
Semester grades due from faculty on or before . Friday, January 2, 1981

Second Semester, 1980-81

Registration for day and evening classes ..... Monday, January 12
Classes begin 8:00 a.m. ..... Tuesday, January 13
Observation of Martin Luther King's
Birthday — no classes ..... Thursday, January 15
Easter Recess begins 5:50 p.m. ..... Friday, April 10
Easter Recess ends 8:00 a.m. ..... Monday, April 27
Classes End 10:00 p.m. ..... Thursday, May 7
Reading Day ..... Friday, May 8
Final Examinations begin 8:00 a.m. ..... Saturday, May 9
Final Examinations end 5:50 p.m. ..... Friday, May 15
Commencement ..... Sunday, May 17
Semester ends ..... Monday, May 18

THE CAMPUS AND FACILITIES

MAIN CAMPUS

The main campus of Clarion State College occupies a tract of 55 acres. The Memorial Athletic Field provides a recreational area of 29 acres for athletic events. The College has acquired land north of Main Street adjacent to the present campus, and a master plan will integrate the development of the new campus with the old.

BALLENTINE HALL, located on Wood Street, houses 116 men. It was named for professor John Ballentine who taught and served at times as Acting President between 1887 and 1920.

BECHT HALL, houses 160 women plus faculty office space and is located on Wood Street. It was named for J. George Becht, President of the college from 1904 to 1912.

BECKER RESEARCH-LEARNING CENTER is located on Greenville Avenue and Thorn Street. It provides laboratories for research in education methods and houses regional services and educational consultative assistance. It was named for C. Fred Becker, Professor of Education and Director of the Laboratory School, Teacher Training, and Placement between 1924 and 1948.

CAMPBELL HALL houses 450 students at the corner of Payne and Wilson Streets. It was named for Frank M. Campbell, Professor of Social Science from 1938 to 1972.

CARLSON LIBRARY is located on Wood Street. The library contains over 200,000 volumes and more than 2,500 periodical titles. The building was named for Rena M. Carlson, College Librarian from 1929 to 1963.

CARRIER ADMINISTRATION BUILDING at Main Street and Ninth Avenue houses offices for the President and his staff, the Vice President for Academic Affairs and his staff, the Registrar, and the Business Office. It was named after Carrier Seminary, direct ancestor of Clarion State College, which had been named for the Carrier family, early benefactors of the Seminary.

CHANDLER DINING HALL is located north of Wood Street, behind Ballentine hall. The modern design provides four dining areas and four serving lines in an attractive setting for comfortable dining. It was named for Dr. Paul G. Chandler, President of the College from 1937 to 1960.

CHAPEL THEATRE is located at Wood Street and Eighth Avenue. The attractive stone building seats four hundred for lectures or public performances.

DAVIS HALL, located on Greenville Avenue, serves as the Audio Visual Closed Circuit Educational Television Center for the campus and contains radio and television studios as well as the classrooms and offices of the Division of Communication. It was named for A. J. Davis, President of the College from 1887 to 1902.

EGBERT HALL is located between the Harvey Student Union and the Carlson Library and provides administrative offices. It was named for Professor Walter R. Egbert, a teacher and Dean of Men of the College from 1887 to 1920.

FOREST MANOR, a privately owned college-supervised residence hall located on Grand Avenue, houses 570 men and women students. A dining hall is included in the building.

FOUNDERS HALL is situated at the corner of Wood and Ninth and houses classrooms, offices and the Campus Bank. It was named for seven founders of the institution.

GIVEN HALL, situated on the hill behind Chandler Dining Hall, houses 250 students. It was named for Lorena M. Given, a teacher at the College from 1893 to 1919.

HARVEY HALL is located between Peirce Science and Chandler Dining Hall. It provides a vending machine snack area, John Nanovsky Multi-Purpose Area for meetings and dances, and student activity offices. It was named for Frank Laird Harvey, a Trustee of the College from 1911 to 1932.

KEELING HEALTH SERVICES CENTER, at the corner of Wilson and Wood Streets, has modern clinical and infirmary facilities. It was named for Doctor Edward J. Keeling, who provided medical care for college students for some twenty-five years between 1939 and 1968.

MARWICK-BOYD FINE ARTS CENTER, which stands at the south corner of Payne Street and Greenville Avenue, provides classrooms, studios, laboratories, offices and exhibit areas for Art, Music and Speech. The auditorium has a capacity of 1700 seats. A little theatre with seating for 250 utilizes the same stage. The Center was named for Miss Marie Marwick and Miss Margaret A. Boyd, teachers of English, speech, and drama between 1929 and 1956.

McENTIRE MAINTENANCE BUILDING on Wilson Avenue, south of Payne Street, was named for Bernard D. McEntire, former Superintendent of Buildings and Grounds. It houses the Physical Plant Offices for Maintenance, Public Safety, Human Services and Motor Pool and the Maintenance Shops.

McKEEVER ENVIRONMENTAL LEARNING CENTER, located at Sandy Lake, Pennsylvania, is a facility consisting of eight buildings designed for the study of the environment. The campus consists of approximately 200 acres with three dormitories, an interpretive

education building, dining hall, maintenance building and director's residence.

MUSIC HALL, east of Carlson Library, is the residence of the president.

NAIR HALL provides housing for 450 students and is located on Main Street. It was named for Miss Bertha Nair, a faculty member in the Department of English for 38 years.

PEIRCE SCIENCE CENTER AND PLANETARIUM, located between Greenville Avenue and Chandler Dining Hall, provides modern classrooms, laboratories, and offices for Physical Science, Biological Science, and Geography, a 250 seat lecture hall, and a planetarium with a diameter of 40 feet. The building was named for Dr. Donald D. Peirce, teacher and Chairman of the Science Department between 1932 and 1968.

RALSTON HALL houses 200 students on the hill behind Chandler Dining Hall. It was named for Mrs. Amabel Lee Ralston, Dean of Women at the College from 1922 to 1930.

RIEMER COLLEGE CENTER is located at the north corner of Wilson Avenue and Payne Street. It offers an attractive lounge, snack bar, cafeteria, meeting rooms, recreation area and coffee house circuit, movies, informal programming, entertainment, etc. It was named for Dr. G. C. L. Riemer, President of the College from 1928 to 1937.

SPECIAL EDUCATION CENTER is located at the corner of Eighth and Greenville. It houses the reception area of the Educational Appraisal Clinic, the Speech and Hearing Clinic and their respective therapy rooms. Some faculty offices and classrooms are located here. The Foreign Language Department also retains its laboratory in this building.

STEVENS HALL, attached to the Special Education Center on Greenville Avenue, provides additional college classrooms and faculty offices for professional and special education programs. It was named for Thaddeus Stevens, the father of the Pennsylvania Public School law of 1834.

THE DANA S. STILL HALL OF BUSINESS ADMINISTRATION AND THE GEORGE R. LEWIS COMPUTER CENTER is on the North Campus at Main Street and Ninth Avenue. This facility houses the School of Business Administration and the Computer Center offices, classrooms, laboratories, lecture rooms, conference rooms, and a small auditorium.

TIPPIN GYMNASIUM-NATATORIUM stands at the north corner of Payne and Greenville. It houses classrooms, offices, and gym areas for physical education, a 3,600 seat arena for varsity sports, and a natatorium with separate diving and swimming pools. It was named for Waldo S. Tippin, teacher, coach, and athletic director between 1935 and 1966.

WILKINSON HALL houses 450 students on the Main Street area of the campus. It was named for Dr. J. W. F. Wilkinson, Dean of Instruction between 1924 and 1935.

VENANGO CAMPUS

Clarion State College operates an off-campus center in Oil City, Pennsylvania. Clarion's Venango Campus, now owned by the Commonwealth of Pennsylvania, is a tribute to the civic spirit of the people of the Oil City-Franklin area who supported and financed the venture. The Campus is located on a sixty-two acre wooded area on West First Street overlooking the Allegheny River.

Staffed with full-time faculty members of Clarion State College, Venango Campus offers students a convenient, inexpensive opportunity for two years of their college education. Courses at the branch campus are identical with those offered on Main Campus. In addition, Venango Campus now offers curricula leading to an Associate of Science degree in Nursing, and in Business Administration, and a two-year certificate program in Habilitative Services.

RICHARD C. FRAME CLASSROOM BUILDING is an attractive, modern building containing classrooms, laboratories, and college offices.

ROBERT W. RHOADES CENTER provides student lounge and recreational facilities, a gymnasium, an auditorium-theater, bookstore, and kitchen.

THE CHARLES L. SUHR LIBRARY BUILDING provides library and study facilities.

MONTGOMERY HALL, a privately owned college-supervised residence hall on the Venango Campus, provides housing for 105 women and 105 men students. A dining hall is included in the building.

STUDENT AFFAIRS

Clarion State College is concerned not only with the academic development of young men and women, but also with their development as mature, self-confident, socially competent adults. To assist this development, various student personnel services are provided. These services enable those enrolled in the college to perform more adequately as students and to derive benefits from the academic, cultural, and social and recreational opportunities offered by the campus environment. In addition, every administrative and teaching member of the faculty is charged with the responsibility of assisting students to select and achieve goals consistent with the ideals of a college community.

STUDENT PERSONNEL SERVICES

COLLEGE-SUPERVISED HOUSING — RESIDENCE HALLS

The College Housing Policy, adopted April 21, 1975, states, "The College considers the residential experience to be an important part of a student's educational program. Housing space will be equitably distributed by class population with special consideration given a student upon recommendation by either the Student Affairs Staff, Health Center, or Counseling Staff."

Within each residence hall, there is a cross-section of students representing most aspects of the highly divergent student body, and the student is exposed to living and working with all types of people. All housing assignments are made without regard to race, religion, color, ancestry, or national origin. Hall and roommate preferences stated on housing applications are given consideration in making assignments and are honored whenever possible.

The contract for assignment to residence halls is for an entire semester unless otherwise specified. The only grounds for an automatic release from the contract are withdrawal from the College or a change in student teaching or internship assignment. Students who marry during the period of the contract are usually released upon request, but it cannot be guaranteed that these or any other requests for releases will be granted either in Commonwealth or privately-owned facilities.

Housing and food service fees are payable at the same time that other college fees become due. Refunds cannot be made unless the student withdraws from college for medical reasons properly certified by the attending physician.

A separate housing and food service application must be submitted for each year. All students returning to residence halls must submit a housing application card at the announced time. Housing information and applications will be mailed to new students prior to registration. After a room assignment is made, the student will be issued contracts to be signed and returned with a non-refundable deposit.

Housing and food services are provided only on a combined basis for students living in the residence halls. Housing and food service contracts may not be transferred or assigned. The meal ticket may be used only by the student to whom it is issued, and a room may be occupied only by the student to whom it is assigned.

Student rooms in the residence halls are furnished with beds, desks, chairs, dressers, closets, and pillows. Students should plan to furnish blankets, linen, bed spreads, and small throw rugs. Radios and record players are permitted if they are operated with due consideration for others.

Students are not permitted to keep guns or firearms in their on-campus living quarters. The Department of Public Safety will store these types of articles for students. Students are free to check these items in and out of the Department of Public Safety at their discretion.

OFF-CAMPUS HOUSING

Students not residing in College-supervised housing live in fraternity houses, rental facilities in the community, or at their own homes. The Housing Office maintains a limited listing of available housing in the community. Householders listing available facilities must comply with all local, state, and federal regulations pertaining to rental units. Other sources of information are local newspapers and realtors.

All arrangements for housing in the community are a business arrangement between the student and householder. The College does not approve or make recommendations to private, off-campus housing accommodations.

FOOD SERVICE

Wholesome, well-balanced meals are provided in Chandler, Forest Manor, and Montgomery Dining Halls by reputable food service companies. All students living in residence halls are required to eat their meals in a dining hall. Students not living in residence halls may contract for their meals at Chandler Hall on a semester basis.

STUDENT DEVELOPMENT

The Educational Opportunity Program for Student Development provides supportive services for students who have deficiencies in their educational background which would hinder their chances for success on the college level. To be considered for this program, individuals must have a high school diploma or its equivalent, a current Needs Analysis on file with the office of Financial Aid, SAT scores and necessary forms and applications with the Admissions Office.

The Student Development Program offers supportive services for students i.e., tutoring, reading and study skills, specialized academic counseling, personal counseling, financial aid counseling, and a seven week Summer Pre-college Experience Program.

General application to the college should be made during the fall of the previous year of planned entrance: an application for financial assistance should be made during the winter of the year of planned entrance. All inquiries should be made to the Director, Educational Opportunity Program for Student Development, Clarion State College.

STUDENT HEALTH INSURANCE

In order to ease the financial burden which could result from serious or extended illness or injury, Clarion State College expects all students to participate in a group insurance plan negotiated by the College which covers the student wherever the illness or accident may occur. A waiver privilege will be extended to those students who have other insurance coverage equal or better than the coverage of the group plan offered.

COUNSELING SERVICE

The Clarion State College Counseling Center is an accredited member of the International Association of Counseling Services, Inc.

Counseling Center staff provide professional services related to developmental, educational, and vocational goals as well as to problems of personal, social, and emotional adjustment. The services of the Counseling Center are available without charge to all regularly enrolled Clarion State College students.

Most students request counseling on their own initiative. Some, however, need encouragement from others to seek counseling assistance. These students may be referred by instructors, academic advisors, residence hall staff, administrators, parents, or fellow students. Those seeking counseling services are not just the marginal or immature students; frequently the exceptionally able and conscientious students require the benefits of professional help in the counseling setting.

In keeping with accepted professional practice, counseling contacts with students are strictly confidential. No information is released to officers of the administration, faculty members, parents, graduate schools, governmental officials, or other outside agencies without the student's written authorization in advance. Rare exceptions to the above policy may occur when, in the counselor's professional opinion, there is a clear, immediate threat to the life or welfare of the student himself, to other students, or the community at large.

For students who need psychiatric evaluation and/or therapy, the Counseling Center maintains a referral service with the Venango County Mental Health Center.

HEALTH SERVICE

The Student Health Service is located in the Edward J. Keeling Health Services Center at the corner of Wood Street and Wilson Avenue. The Health Service provides for general health care needs of enrolled students.

The Health Service is staffed by registered nurses 24 hours per day, seven days per week for out-patient and in-patient care. A physician is

present and holds regular hours throughout the week and is available on emergency call from the nursing staff during nights and weekends. Students with routine illnesses and minor injuries will be seen by the physician only during the regularly scheduled clinic hours.

In addition to illnesses and injuries, routine physical examinations, and information counseling, some immunizations and allergy or other injections prescribed by personal physicians are available.

Most commonly used medications are available to students at no cost on physician's orders. Some less used medications must be prescribed and purchased at a pharmacy by the student. Medical equipment such as crutches, canes, slings, braces, etc., are available and may be loaned to students. There are no charges for using the in-patient services if the student has a dining hall contract. A slight charge is made to those students who live off-campus and do not have a dining hall contract.

House calls are not made by the Health Service staff and only under emergency circumstances are calls made to a residence hall.

A student is expected to provide his own transportation to and from the Health Service, except for emergencies as determined by the Health Service staff or a college official. Transportation to and from the Health Service and/or to and from the Clarion Community Hospital for laboratory studies or other medical services is also determined by the above regulations.

Ambulance transportation to surrounding hospitals will be at the student's expense.

The Health Service has no x-ray facilities and limited laboratory facilities. For the vast majority of these studies, the facilities of the local hospital are utilized on a physician's written order for the type of examination desired at the student's expense.

All students are strongly encouraged to enroll in the college sponsored insurance program, or carry protection through a family hospitalization insurance program.

CAREER PLANNING AND PLACEMENT

The Office of Career Planning and Placement provides services related to career information and placement to all students and alumni who desire them. Seminars are conducted for juniors and seniors concerning necessary job entry skills. Graduate school information is also maintained along with various test applications for entry into graduate schools.

The Office of Career Planning and Placement assists Clarion State College graduates in obtaining entry-level positions and advanced-level positions, as well as part-time and summer jobs. Vacancy notices are received from school systems, government agencies, business, industry, and various organizations. These notices are relayed to interested persons. Assistance is provided to college students and personnel

officials in arranging employment interviews. Placement credentials are prepared and distributed, upon request, to prospective employers in support of the applicant's candidacy. A listing of graduates, including their home address, phone number, and area of concentration is prepared and mailed to prospective employers, upon request, to facilitate the graduate in obtaining a position. Any student who does not wish to be placed on the list may have his/her name removed upon request.

Services are provided for students seeking career information, career changes, resume and credential preparation, application completion, interviewing techniques and procedures, and various state certification requirements for education. Current seniors, as well as graduates of former years, are urged to maintain their contacts with the office as a means of facilitating professional entry and promotion.

PARKING AND AUTOMOBILE REGULATIONS

All provisions of the Vehicle Code of the Commonwealth of Pennsylvania as supplemented by parking regulations issued by the Secretary of Education will be strictly enforced on the Clarion State College Campus. Authority for such enforcement rests with the Director of Public Safety. Persons failing to pay fines will be reported to the District Magistrate and upon conviction will be subject to penalties provided by law.

All persons who possess, maintain, or operate a motor vehicle on campus are required to register such vehicle with the Department of Public Safety. Registering a vehicle does not guarantee a parking space.

1. Persons qualifying for campus parking privileges will be issued a decal indicating that this privilege has been granted and will be assigned to a specific parking area.
2. Any person acquiring the use of a motor vehicle after the regular registration period who intends to operate the vehicle on campus must register the vehicle within twenty-four hours with the Office of the Director of Public Safety. Motor vehicles must be registered even when their use is intermittent rather than regular.

STUDENT ACTIVITIES

Student activities of Clarion are viewed as another means of self-development. Therefore, the responsibility for the success of any activity or organization must rest with the students involved and ample opportunity exists for gaining experience in leadership and self-government.

STUDENT GOVERNMENT

Through participation in student government, students have an opportunity to gain experience in democratic living and self-government. All students become members of the Clarion Students' Association upon their initial enrollment at Clarion and, thereby, are eligible to participate in the election of the Student Senate, the governing body of the Association. The Student Senate is responsible for expenditure of student activity fees through allocations to the various activities and organizations. The Senate has an important relationship to other Association operations such as the College Book Center and the Student Centers. It also appoints student representatives to various standing committees of the college.

Other opportunities for self-government are provided through the governing boards of the Association of Women Students, Panhellenic Council, Interfraternity Council, College Center Board, Inter-Hall Council, and residence hall councils.

The full utilization of this leadership is a very necessary element of success in any college or university and the maximum development of the leadership potential of each student must be considered an important part of the educational process. It is a well established fact that even though a college may have an excellent faculty and physical plant, it cannot attain true excellence unless it also has a capable and energetic student body able and willing to accept the responsibilities inherent in leadership.

ACTIVITIES PROGRAM

The purpose of an extensive and varied activities program on campus is to make the College experience richer and more enjoyable. Clarion State College is fortunate to have a wide variety of activities available to its students.

Many of the major cultural and entertainment functions are sponsored by committees of the College Center Board from student activity fees allocated to it by Student Senate. Examples of such programs are Homecoming Weekend, coffee houses, campus movies, Miss CSC Pageant, pop concerts, and special performances by noted orchestras, drama groups, speakers, etc. The Black Arts Festival, Distinguished Scholar Lecture Series, intercollegiate athletics, and music and drama performances by CSC students and staff are important parts of the total activities program. Honoraries, clubs, and special interest groups further round out this program with speakers, movies, and service projects on and off campus.

Although many of these activities take place in Chandler Dining Hall, the Chapel, Marwick-Boyd Auditorium, and Tippin Gym, the two basic facilities for students are Harvey Hall and Riemer Center. Harvey Hall

provides facilities for table tennis and games; a meeting area; vending area; offices for various student organizations; and the office of the Coordinator of Student Activities. Riemer Center, opened in the spring of 1972, provides a snack area with adjoining coffee house, dance and multi-purpose area with portable stage, a TV lounge, two conference rooms, a games area, a listening room, Center Board Office, and the office of the Director of College Centers.

The following professional organizations and special interest groups are active on campus. Information on athletics, musical groups, speech activities, student publications, and fraternities and sororities is included later in this section.

HONORARY ORGANIZATIONS

Alpha Mu Gamma (Foreign Language)
Alpha Phi Gamma (Journalism)
Alpha Psi Omega (Dramatics)
Gamma Theta Upsilon (Geography)
Kappa Delta Pi (Education Honorary)
Kappa Kappa Psi (Honorary Band Fraternity)
Lambda Sigma (Library Science Honorary)
Omicron Delta Epsilon (Economics Honorary)
Phi Alpha Theta (History)
Phi Beta Alpha (Business Honorary)
Pi Kappa Delta (Forensics)
Pi Mu Epsilon (Math Honorary)
Psi Chi (Psychology Honorary)
Tau Beta Sigma (Honorary Band Sorority)

MEDIA ORGANIZATIONS

Call
Radio Station — WCCB
Sequelle
Student Experimental Television (SET)

PROFESSIONAL ORGANIZATIONS

Accounting Club
American Chemical Society
Archaeological Association
Bios Club
Business Association
Council for Exceptional Children

English Club
Geographical Society
German Club
History Club
Marketing Association
Math Club
Music Educators National Conference
National Students Speech & Hearing
PSEA
Pre-Med Club
Psychology Club
Russian Club
Spanish Club
Youth Pa. Association of Retarded Citizens

SPECIAL INTEREST GROUPS

Alpha Phi Omega
Black Student Union
Brass Choir
Campus Crusade for Christ
Chemistry Club
Chess Club
Clarion Association for Childhood Education
Clarion International Association
Clarion Outing Society
College Community Symphony Orchestra
College Players
College Readers
Collegiate Rainbow
Concert Band
Concert Choir
Debate Team
Gospeliers
Individual Speaking Events
International Meditation Society
Lab Jazz Band
Lyric Opera Workshop
Madrigal Singers
Marching Band
Percussion Ensemble
Pershing Rifles
Science Fiction & Fantasy Club
Student Alumni Association

Symphonic Band
Veteran's Club
Young Democrats
College Republicans

ATHLETIC PROGRAM

INTERCOLLEGIATE ATHLETIC competition plays an important role in the lives of Clarion State College students. Clarion State is affiliated with the N.C.A.A., N.A.I.A., E.A.I.A.W., and A.I.A.W.

The present athletic program includes varsity competition for men in baseball, basketball, cross country, football, golf, swimming, track, and wrestling. Competition for women includes basketball, gymnastics, cross country, softball, swimming, tennis, track and field, and volleyball. Co-ed competition is offered in bowling, judo, and rifle.

Facilities for intercollegiate athletics include the Memorial Stadium dedicated in 1965 and the Waldo S. Tippin Gymnasium-Natatorium dedicated in 1968. The stadium will seat approximately five thousand spectators for football and track, and has dressing rooms for varsity and freshman teams in football, baseball, and track, with separate visiting team dressing, shower, and locker rooms. The football field is surrounded by an all-weather track. The facility also includes a baseball diamond and field, practice football fields, and parking areas for several hundred cars. The Gymnasium-Natatorium, seating approximately four thousand spectators, provides year-round physical education and athletic activities and services.

INTRAMURAL ATHLETICS are provided for men and women students by funds from student activity fees allocated by the Student Senate. The program is planned and supervised by the Department of Health, Physical Education and Recreation. Intramural competition includes touch football, soccer, volleyball, squash, handball, chess, bowling, table tennis, basketball, bridge, "500," wrestling, badminton, archery, billiards, swimming, softball, track and field, water basketball, golf, paddleball, and other areas where interest is sufficient.

MUSIC PROGRAM

CLARION STATE COLLEGE CONCERT CHOIR. Membership in the Concert Choir is by audition only. Auditions are held at the beginning of each semester, and membership is open to any student who can satisfactorily pass the audition examination. The Concert Choir has a long and distinguished history as a performing group.

THE MADRIGAL SINGERS is a highly select group made up of advanced students who possess the technique and voice which are vital to this specialized area of music. This group is a flexible one and varies in

number from sixteen to twenty five voices, depending upon the compositions to be performed. The literature presented by the Madrigal Singers represents some of the finest music ever written for voice.

THE LABORATORY JAZZ BAND. Comprehensive study of various schools and styles of jazz through performance, utilizing a jazz ensemble of approximately twenty-five instrumentalists selected on the basis of playing ability. Performance literature includes representative works for large jazz band ranging from styles of the 1930's to the present, with emphasis on recent trends in composition and arranging. The Laboratory Jazz Band presents two formal concerts each year on the college campus and performs for high school and community audiences in tours throughout Western Pennsylvania.

MARCHING BAND. Ranked as one of the finest college bands in Pennsylvania, the Clarion State College Marching Golden Eagles has continued its traditionally outstanding musicianship and marching finesse as the membership has increased.

The ideals of the band are geared first to develop musicianship and marching precision; second, to inspire and encourage academic achievement; third, to develop character; and fourth, to develop outstanding leadership ability.

SYMPHONIC BAND. The Clarion State College Symphonic band is a skilled ensemble of ninety wind and percussion players. Membership is dependent upon the outcome of the audition and particular instrumental needs.

Purposes of the Symphonic Band are to perform literature of the highest aesthetic value, with an emphasis on original works for band; to attain perfection in performance ability through rigid requirements for individual musicianship and advanced playing technique; and to provide a means for artistic expression through participation in a distinctive medium of musical expression.

The repertoire of the band is selected from all periods and styles of composition and is designed to meet a variety of program responsibilities.

The Symphonic Band is featured in two major concerts each year and an Annual Spring Tour. Guest artists and clinicians appearing with the band in recent years include Rafael Mendez, Bob Lowry, Warren Covington, James Burke, Frank Arsenault, Roy Burns, James W. Dunlop, William Bell, and Warren Mercer.

THE BRASS CHOIR is a highly specialized organization offering outstanding students an opportunity to study and perform chamber music for brass. The repertoire is varied with a concentration on early music and music of the twentieth century. Exactitude of intonation, rhythmic precision, phrasing, and proper methods of attack are stressed.

The number of students in the Brass Choir will vary somewhat from semester to semester depending upon the instrumentation of the compositions to be performed. Participation is available by audition only.

THE CLARINET CHOIR is a performing organization specializing in chamber music specifically arranged for the entire clarinet family. Literature for this group encompasses compositions from different historical periods. The stress in this group is on performance and consequently intonation, rhythmic precision and dynamics. Furthermore, it furnishes the students with an opportunity not only to perform as regular members but also to participate as soloists and conductors in order to prepare them for public school music education. Any clarinetist interested in the clarinet choir may participate, provided he or she has passed the audition for admission to this group.

PERCUSSION ENSEMBLE. The Clarion State College Percussion Ensemble is a highly specialized organization offering outstanding students an opportunity to study and perform chamber music for percussion instruments. The ensemble performs music from a wide variety of styles. Contemporary works, transcriptions of early music, music of various ethnic groups, and jazz-rock works are studied and performed with stress placed on the development of musical concepts and skills such as phrasing, balance, intonation, rhythmic precision, improvisation, and conducting. The ensemble presents percussion concerts and clinics throughout the year both on campus and on tours. Membership is open to all percussion music majors and all other students by audition only.

WOODWIND CHOIR consists of all woodwind instruments regularly found in the concert band. The purpose of this organization is to perform chamber music, especially arranged for this medium. Students who have had considerable playing experience on the woodwinds (majors and non majors) may join this organization. No auditions necessary.

BRASS, STRING, WOODWIND, AND SMALL PERCUSSION ENSEMBLES are organized when the talent and instrumentation are available. Membership in these groups is voluntary.

TAU BETA SIGMA is a National Honorary Band Sorority which received its charter in May of 1970. Membership is open to all women in the college band who have completed one semester of active participation in the band program and who have successfully completed a pledge period. The sorority is dedicated to the ideals of promoting musicianship, leadership, citizenship, and service.

THE CLARION STATE COLLEGE OPERA WORKSHOP is open to all students who are interested in becoming acquainted with great works in

lyric drama and musical comedy and the problems involved in producing these works. Short scenes, as well as complete works, are produced in the fall and spring semesters. Dancers, singers, actors, and production personnel are invited to participate.

THE CLARION STATE COLLEGE-COMMUNITY ORCHESTRA consists of students, faculty and selected laymen of the area. The orchestra traditionally presents concerts each year which include not only the standard literature for orchestra but also the performance of concertos with students and faculty as soloists. Other playing opportunities are provided on occasion to perform with the choir, opera workshop, and the all-college musical. Membership is open to all in consultation with the conductor.

PUBLICATIONS PROGRAM

THE CLARION CALL is the weekly college newspaper. Published by the Clarion Students' Association, it follows regular newspaper style and format. Staff participation is essential for students with an interest in entering the field of journalism or publications advisement. Prior experience in journalism is helpful but certainly not necessary for success. Certain editorial and business positions receive financial remuneration.

DARE, which is published under the guidance of the English Department, presents a channel of creative communication for those students whose interests and talents are in this area. This publication is the culmination of the year's best in creative writing by Clarion State College students.

THE SEQUELLE is the college yearbook. The staff is comprised of students from all major fields of study. Working on the book provides students with an opportunity to display their creativity in the areas of journalism and photography. Prior experience is helpful but not absolutely necessary. Professional help is available to the staff as they plan and assemble the book.

RELIGIOUS PROGRAM

Clarion State College welcomes students of all religious backgrounds and persuasions. The following religious programs are provided by the groups independent of the College.

THE CAMPUS MINISTRY includes students, faculty and others in a varied program of worship, religious studies, social service and personal Christian ministry to members of the college community. The Campus Ministry has initiated or aided such diverse programs as canoe retreats,

dormitory seminars, intercollegiate conferences, a CROP Walk for Hunger, The Clarion Food Buying Club, and CSC Gospeliers, films, the recycling center, religious drama, and academic innovation in addition to its regular ministries of Folk masses, biblical studies, and personal caring.

The Campus Ministry provides a Center near campus with offices and meeting lounges which is open seven days a week. A priest (226-6869) and a minister (226-5792) serve the Campus Ministry as full-time staff. The Campus Ministry supports the Black Campus Ministry at Clarion and works in partnership with seven local congregations. The Campus Ministry is the representative at Clarion State College for the following churches: Roman Catholic, Methodist, Presbyterian, Lutheran, Baptist, United Church of Christ, Church of God, Episcopal, Disciples, Brethren, Moravian, and the Reformed Church. The Campus Ministry at Clarion is one of the most ecumenical agencies in existence anywhere. In addition, other religious and special interest groups use the services and facilities of the Campus Ministry. The Clarion Campus Ministry is related to the Erie Diocese of the Roman Catholic Church and the Pennsylvania Commission for United Ministries in Higher Education. It is directed by a local Council of students, faculty, and church representatives.

A JEWISH STUDENT ASSOCIATION is active at Clarion when there is sufficient student interest.

Students of the Jewish faith are welcome at the Tree of Life Synagogue which is located in Oil City, Pennsylvania, approximately twenty-five miles from the campus. The Tree of Life Synagogue has an active congregation made up of families who live within about a forty mile radius of Oil City. The congregation includes several families from the Clarion area.

SOCIAL PROGRAM

SORORITIES provide an opportunity for women students to develop close friendships within a group whose aims are common with their own. They promote scholarship, cultural interests, service projects, and participation in campus activities. The national sororities are Alpha Kappa Alpha, Alpha Sigma Alpha, Alpha Sigma Tau, Alpha Xi Delta, Delta Sigma Theta, Delta Zeta, Phi Sigma Sigma, Sigma Sigma Sigma, and Zeta Tau Alpha.

PANHELLENIC COUNCIL is the advisory governing board of all Clarion State College sororities. The council promotes cooperation and coordination of activities and standards among sororities and between sororities and fraternities. Two representatives from each of the nine sororities on campus comprise the membership of the council. A major social activity planned jointly by Panhellenic and Interfraternity Council is Greek Weekend which is held during the spring semester.

FRATERNITIES. Chapters of eight national fraternities, Alpha Chi Rho, Kappa Alpha Psi, Omega Psi Phi, Phi Sigma Kappa, Sigma Chi, Tau Kappa Epsilon, Theta Chi, and Theta Xi, in addition to two locals, Phi Sigma, and Sigma Tau, are located on campus. Members of several of these organizations live in chapter houses near the campus.

INTER-FRATERNITY COUNCIL is the governing organization of the fraternities and is composed of representatives of the nine fraternities. Under the provisions of its constitution, it is responsible for the coordination of fraternity programs, pledging activities, and the arbitration and adjudication of violations of I.F.C. policies. In addition, it works actively with the Panhellenic Council to enhance the position and welfare of all Greek letter organizations on campus.

SPEECH AND DRAMATICS ORGANIZATIONS

PI KAPPA DELTA is a national honorary society in forensics. Clarion students attend thirty or forty debate tournaments a year and have traveled as far as Tacoma, Washington, and New Orleans, Louisiana, to take part in intercollegiate competition in debate, oratory, and extemporaneous speaking. Active team members earn the right to membership in Pi Kappa Delta.

COLLEGE READERS. This organization is open to all students interested in performing literature. Members of the group interpret stories, poems, and plays for children and adult audiences, and travel to other colleges for interpretation festival experiences. This is part of the theater program.

ALPHA PSI OMEGA is a national honorary dramatics fraternity. Alpha Upsilon is the local chapter at Clarion. This organization attempts to further the student's knowledge of and association with the theater. This chapter sponsors the Alpha Psi Omega Memorial Scholarship Fund which grants deserving theater awards to recognize students' work with a theatrical production.

COLLEGE PLAYERS. The Campus dramatic organization is known as the College Players. Opportunities for gaining experience in the various phases of play productions are afforded through participation in four major productions and the student-directed one-act play which are publicly produced at Clarion. There is also a Summer Theater Program.

INDIVIDUAL SPEAKING EVENTS. This organization is open to all students whose interests lie in competitive public speaking. Members of the team compete in persuasive, informative, humorous, extemporaneous and impromptu speaking, as well as in oral interpretation. Tournaments are held at colleges across the country and to date the team has traveled to eight states. The team has held the first place title in the nation.

NEW STUDENT ORIENTATION

All new students are expected to attend one orientation prior to their matriculation. Usually ten separate sessions of two days' duration are conducted between the third week in June and the end of July. Parents are welcome and encouraged to attend with their sons and daughters.

The primary objective of the program is to aid entering students in making the adjustment to life at Clarion State College. In order to facilitate that adjustment and allow students to pursue their education in the best possible manner, the academic and extra-curricular phases of college life are experienced and explored in large and small groups. Pre-registration information and scheduling for fall semester classes culminate the program. Such academic advisement as is possible is conducted during this time.

Registration forms and instructions for the Summer Orientation Program will be mailed during the spring semester prior to enrollment. Students entering in January also attend during the summer.

GENERAL INFORMATION

ACCELERATED PROGRAM

Students who take three summer terms of ten weeks each may finish the four-year course in three years.

ADVANCED PLACEMENT

See Credit by Examination statement.

AWARDS

Chemistry Department
- Outstanding Freshman Chemistry Major:
  - Chemical Rubber Company
- Junior Award in Analytical Chemistry:
  - Division of Analytical Chemistry of the American Chemical Society
- Outstanding Senior Awards:
  - Society for Analytical Chemists of Pittsburgh
  - American Institute of Chemists

CORRESPONDENCE DIRECTORY

Academic Affairs
- Vice President for Academic Affairs and/or
- Associate Vice President for Academic Affairs

Admissions
- Director of Admissions

Alumni Affairs
Alumni Secretary
Business Affairs, Fees, Refunds
Business Manager
Certification
Dean of Professional Studies
Courses and Curricula
Appropriate School Dean
Educational Opportunity Program for Student Development
Director
Readmissions and Withdrawals
Associate Vice President for Academic Affairs
Student Affairs, Organizations, Activities
Vice President for Student Affairs
Summer Classes
Dean of Summer Sessions
Transcripts and Records
Records Office
Address for all above named officials:
Clarion State College
Clarion, Pennsylvania 16214

COURSE NUMBERING

Courses numbered 100 to 299 inclusive are primarily for Freshmen and Sophomores; 300 to 499 for Juniors and Seniors. Some courses numbered between 400 and 499 are acceptable for graduate credit. Courses numbered above 500 carry graduate credit.

The College reserves the right to change the sequence and number of courses.

CREDIT BY EXAMINATION

1. C.L.E.P.

A maximum of 60 credits may be earned through the College-Level Examination Program (C.L.E.P.) administered by the College Entrance Examination Board. These Examinations are designed to evaluate college-level education gained through prior education or training, particularly independent study, work experience, or armed service training. The College-Level Examination Program includes: a five-area General Examination which, if successfully passed, will grant 30 credits, or the freshman year's work, and approximately 50 subject examinations granting subject credits upon successful completion. Details on minimum scores and credits granted for both the general and subject examinations are available in the Office of Academic Services.

2. C.E.E.B.

Students may also earn credit and advanced standing through the Advanced Placement Program of the College Entrance Examination Board. This program is designed for high school students who expect to enter college and who have participated in one or more of the advanced classes while in high school. There are eleven subject areas in this program and any high school student who earns a score of three or better in a subject area will be granted three credits. The National Advanced Placement Examinations are given in May of each year.

3. Transfer of Credits Earned by Examination

For transfer students, credits granted by way of C.L.E.P. or Advanced Placement Examinations at other accredited institutions will be accepted if the minimum scores on such examinations meet the minimum standards at Clarion State College.

4. Proficiency Examinations

Course credits not to exceed 38 semester hours may also be earned by proficiency examination for advanced college work administered by the departments in which the particular proficiency is taught. Students who appear to possess a proficiency equal to or greater than that required in a particular course may make application for such an examination in the Office of Academic Services; the chairman of the subject area concerned will determine the validity of the application. Minimum qualifications for proficiency examination applications are as follows: first semester freshmen must have scored 550 or above in the verbal on the SAT; students other than first semester freshmen must have a quality point average of 2.50 or above; in no case may a student earn credit for a course more than once for any given subject. A fee of $25.00 is charged for each examination taken.

5. Credit for Life Experience

Clarion State College may grant credit for life experience based upon careful evaluation of such experience. For information, one may contact the Academic Affairs Office, the dean of the School in which he/she is enrolled, or the chairman of his/her major department. Clarion State College accepts credits for life experience recommended by the Life Experience Center, Edinboro State College, Edinboro, Pa. 16412.

EVENING CLASSES

Evening classes are organized each semester for the convenience of regular students, in-service teachers, and others who may be interested in college courses. Work done in these courses gives customary college credit and may be applied toward a degree. Information concerning course offerings may be secured by writing to the Office of Academic Services. Evening classes are part of the regular college program and are an extension of the usual day schedule.

GRADE RELEASE POLICY

Public Law 93-380 (The Family Educational Rights and Privacy Act of 1974) prohibits the release of educational records, other than to certain defined exceptions, without the student's consent. One such exception is Section 438 (b) (1) (H) which allows release of educational records to, "Parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954."

Under the provisions of Section 438, the Academic Affairs Office will send grades to parents. Students who are not dependents, meaning they are not so claimed by their parents for income tax purposes, may have their grades withheld from their parents by filing a request at the Records Office that their grades are not to be sent home, and presenting evidence of non-dependency.

INDEPENDENT STUDY

Independent study opportunities are available to students dependent upon faculty and financial resources available. Acceptance of students for independent study is voluntary on the part of a faculty member and must be approved by the appropriate department chairman, school dean, and the Vice President for Academic Affairs. Students accepted for independent study are upon request entitled to five hours of faculty time for each hour of independent study credit carried.

NONDISCRIMINATION ON THE BASIS OF HANDICAP

Federal Law (Section 504 of the Rehabilitation Act of 1973) provides that no qualified handicapped person shall, on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives or benefits from federal financial assistance. This provision of law applies to Clarion State College and the effect of this law is to ensure that:

(1) no one may be excluded from any course, or course of study, on account of handicap;

(2) classes will be rescheduled for students with mobility impairments if they are scheduled for inaccessible classrooms;

(3) academic degree or course requirements may be modified in certain instances to ensure full participation by handicapped students;

(4) alternate methods of testing and evaluation are available in all courses offered by the college for students with requirements for such methods;

(5) auxiliary aids are made available by the college for students with impaired sensory, manual, or speaking skills;

(6) certain campus rules and regulations may be waived if they limit the participation of handicapped students; and

(7) housing opportunities, employment opportunities, and other opportunities for handicapped students are equal to those of non-handicapped students.

As part of the college registration process, students are provided with a form on which they may list any special accommodations required due to handicap. If a student experiences difficulty in obtaining such special accommodations, the student may submit an appeal or grievance to the department head or other college official responsible for the accommodation and, if necessary, to the Section 504 coordinator.

RESERVE OFFICERS TRAINING CORPS (ROTC)

The United States Army offers the Reserve Officers Training Corps Program at Clarion. Enrollment in the four-credit ROTC option incurs no military obligation whatsoever and allows the student the option of competing for a one, two or three year ROTC scholarship.

Upon graduation from Clarion and successful completion of the Advanced course ROTC program, the student will receive a commission as a Second Lieutenant in the United States Army. Newly commissioned

officers have the option of serving three years active duty with the remaining obligation served with the Army Reserve or National Guard.

Students seeking advanced degrees can be granted an educational delay by the Army following completion of their baccalaureate degrees. Additional information can be obtained at the Military Science office. Curriculum details are presented elsewhere in this catalog.

RESIDENCE REQUIREMENT

To be eligible for a baccalaureate degree at Clarion State College, a student must earn a minimum of 30 semester hours credit in residence. These 30 semester hours must be approved by the appropriate school dean and department chairman of the academic area in which the degree is to be granted.

STUDENT RECORDS

Student academic and personal records are confidential in nature and shall be released only to appropriate faculty and administrative officers and to parents and guardians if the student is a dependent. Release of these records to other persons, institutions, or governmental and legal agencies shall occur only upon approval by the student or graduate or upon subpoena.

Transcripts of academic work are available to the student or graduate at the Records Office when requested by him or her in writing. The first transcript is free; thereafter, the charge is $1.00 per transcript.

STUDENT RESPONSIBILITY FOR ACADEMIC PROGRAM

Each student is individually and personally responsible for learning the requirements of the curriculum which he or she is following and for seeing that these requirements are scheduled and completed for graduation. It should also be understood that information and policies presented in this catalog are subject to change before a new edition is published. However, curriculum and program changes occurring after a student has entered a program are not made retroactive for that student.

POLICY ON CLASS ATTENDANCE

The college recognizes that the grade a student earns in a course should be a measure of comprehension and achievement. Regular class attendance promotes both of these goals. Therefore, the concept here is that the student has the responsibility for regular class attendance. It is understood that a decision to be absent from regularly scheduled classes, for whatever reason, does not excuse the student from responsibility for examinations, knowledge of assignments, or the

learnings to be facilitated by the class. Absence due to an assigned field trip or other official college business will constitute an excused absence with make-up privileges. Otherwise, make-up of class work or examinations is at the discretion of the instructor. This policy is administered at the student-instructor level.

INTERNATIONAL EDUCATION — STUDY ABROAD

Clarion State College, as a member of the Pennsylvania Consortium for International Education (PCIE), participates in two four-week summer sessions at the University of Salzburg, Austria, which are taught by professors from 14 different Pennsylvania state colleges, and for which full residence credit at Clarion is granted. The Salzburg Study Program enables students to spend eight weeks in Europe in historic Salzburg at the edge of the Alps. Students combine study (courses in English) in a rich cultural setting with international experience of living in private Austrian homes. Varied events, such as visits to art galleries, concerts, excursions to historic castles and cities, and landscapes are integrated into the academic program. Week-end trips to Venice, the Bavarian castles, Vienna, Zurich and Lucerne, and to Prague are also part of the program.

Clarion State College offers an inexpensive five-week program in Mexico. Designed for students who are not majoring in Spanish, the program includes, in addition to language instruction, a variety of cultural and social experiences. Participants can earn up to eight academic credits. Many students participate in the program as an alternative means of meeting the foreign language requirement for the B.A. degree.

The Department of Modern Languages and Cultures offers a seven-week summer session at the University of Valencia on the Mediterranean coast of Spain. Courses in Spanish language and literature are offered at all levels, from first semester Spanish through in-service teacher graduate work. Week-end excursions in the area and a longer trip include Alicante, Granada, Córdoba, Sevilla, and Madrid.

The Department of Modern Languages and Cultures also makes individual arrangements with students for study programs at Goethe Institutes and universities in Germany, and similar programs at French universities.

The Committee on International Education at Clarion with the Federation of German-American Clubs in Germany, has established a one-for-one student exchange with a Clarion student sponsored at a German university while a German student studies at Clarion.

Many additional international programs on all continents are available through the Clarion Fulbright Advisor.

THE 1980 SUMMER SESSION

The Summer Session is maintained for the benefit of regular college students as well as for teachers in service. By taking advantage of the summer sessions, teachers can secure the professional training needed to meet the requirements for professional certification. Advanced courses are offered in the summer sessions for the benefit of teachers who desire to secure credits toward a degree in education or for permanent certification. Workshops are being added for those interested in special problems in education. Liberal Arts, Business Administration, and Graduate courses are also an important part of the summer schedule.

Clarion is attractive to those who desire to combine work with recreation during the summer. The high elevation provides a pleasant climate, and the area offers opportunities for boating, swimming, hiking, riding, and other outdoor activities. There are two consecutive five-week periods of classes. The first starts on June 9 and ends July 12. The second starts July 14 and ends August 15.

VETERANS' AFFAIRS

Clarion is approved by the Veterans Administration to offer the regular degree curricula to veterans and children of deceased veterans.

Credit for educational experience in the Armed Services is allowed on the basis of the recommendations of the American Council on Education.

Veterans seeking information should consult the Office of Academic Services.

ADMISSIONS

ADMISSION OF FRESHMEN

In accordance with the principles governing admission adopted by the Board of State College Presidents, four general requirements have been established for admission to State Colleges:

1. General Scholarship
2. Character and Personality
3. Health and Physical Vigor
4. College Entrance Examination Board Test or American College Test.

Applicants for admission must satisfy the following requirements as outlined in detail below:

1. General scholarship as evidenced by graduation from an approved secondary school or equivalent preparation as determined by the Division of Professional Certification and Credentials Evaluation Division of the Pennsylvania Department of Education. The applicant must submit scores earned on the Scholastic Aptitude Test administered by the College Entrance Examination Board or scores earned in the American College Testing Program. Arrangements for taking these examinations are to be made through the high school guidance counselor.

2. Satisfactory character and personality traits as well as proper attitudes and interests as determined by the high school principal, guidance director, or other school official acquainted with the student.

3. Health and physical condition as evidenced by a health examination by the student's family physician, reported on the official form and approved by the college physician. No student shall be admitted to the teacher education program who has, in the opinion of the college, disabilities which would impair his service as a teacher.

4. Request the College Entrance Examination Board or the American College Testing Program to forward aptitude test scores to Clarion.

All liberal arts applicants and education applicants who intend to major in a foreign language must schedule an achievement test in the language, if that language has been studied in high school. The achievement tests are administered by the College Entrance Examination Board. Arrangements to take the tests may be made through the high school counselor.

ADMISSION WITH ADVANCED STANDING

Applicants transferring from other institutions will not be accepted without official transcripts of credit and certificates of honorable dismissal. A transfer student must have a minimum of one year's residence (30 semester hours of credit) at Clarion to qualify for a degree from Clarion.

Credit will be given for acceptable courses pursued in accredited collegiate institutions in which the student has made grades of A, B, or C. Where the grades are marked on a percentage basis, work graded five percent above the minimum passing grade will be accepted. Course grades transferred from other institutions do not affect the quality point average a student earns at Clarion. Quality points are not transferred.

Teachers in service may complete in extension courses not more than 25 percent of the courses required for an undergraduate degree.

Applicants who are not graduates of an approved four-year high school must have their credits evaluated by the State Department of Education, Harrisburg, Pennsylvania. Applicants who need this type of

evaluation should consult the Registrar of the College. This regulation applies to teachers in service.

Graduates of Pennsylvania community colleges with the Associate of Arts degree are accepted by the College as degree transfer students with two full years of academic credit. The College generally does not accept more than two years of work or 64 credits from any two-year institution.

ADMISSION OF FRESHMEN IN AUGUST, 1980

Applicants for admission to the freshman class in 1980 should read and observe carefully the following procedure:

1. Come in or send to the Admissions Office of the College for the forms necessary in making application for admission. There are two of these: (1) application and personnel record blank and (2) the report from secondary school officials.

2. Send the personnel record to the College along with an application fee of $10.00 payable to the Commonwealth of Pennsylvania. This fee is not refundable. The secondary school record must be sent directly to the College by the principal or other school official. A medical form is to be completed after the applicant has been accepted.

3. A registration deposit of $40.00 must be paid when the applicant receives notice of approval of his application for admission. This fee is not refundable but is credited toward the student's tuition fee upon registration.

4. Clarion State College applicants may ask for a decision as early as July 1 following their Junior year in high school. This would require the applicant to have taken the Scholastic Aptitude Test or the American College Test in the junior year.

WITHDRAWALS

All class withdrawals must be made through the Office of Academic Services. Classes from which a student withdraws during the first two weeks of a semester will not appear on his record. Withdrawals between the end of the second and ninth weeks may be made without penalty. After the beginning of the tenth week of a semester or the second half of a summer session, a course from which a student withdraws shall be finally reported with a grade of "E." Exceptions may be made for withdrawals due to extenuating circumstances such as illness or some other unavoidable occurrence.

If a student is on probation at the time of withdrawal from all classes and the withdrawal is after the twelfth week of the semester, he will not be permitted to return for the following semester unless the withdrawal is based on extenuating circumstances.

If a withdrawal is not made through the office of Academic Services, a failing grade will be recorded for the affected course(s).

Any student who withdraws from the college either during or at the end of a semester must notify the Office of Academic Services of his intention to withdraw and the reason for withdrawal. This is necessary for completion of the student's permanent record. Failure to comply with this regulation will constitute an unofficial withdrawal and may affect the student's chances of future readmission or his obtaining an honorable dismissal.

SCHOLARSHIP REQUIREMENTS

Student progress is normally reported once each semester. At the end of the first six weeks, each staff member submits to the Office of Academic Services a report of all freshman students doing unsatisfactory work in their classes. These reports are recorded and then passed on to the students.

GRADING SYSTEM

A indicates superior attainment.
B indicates attainment above average.
C indicates average attainment.
D indicates attainment below average.
E indicates failure.
Inc Indicates incomplete work.
W indicates withdrawal from a course.
WX indicates withdrawal from college.

Inc (incomplete) is not used unless a student has been in attendance through a semester or session. It indicates that the work of a student is incomplete and that the final grade is being withheld until the student fulfills all of the requirements of the course. It is used only when conditions and circumstances warrant and when evidence is presented to justify its being given.

All incomplete grades must be removed by the end of the following semester or they become failures.

Credit — No Record Courses. After a student has earned a minimum of 30 semester hours of credit and if he is in good academic standing, he may schedule a maximum of 6 courses or 18 semester hours for Credit — No Record. One such course may be taken each semester or summer session.* Courses in one's major field may not be taken for Credit — No Record. The option for taking a course for Credit — No Record is limited to the first five weeks of each semester, and the first four days of any five weeks summer session. Satisfactory work in a Credit — No Record course shall be shown on the grade report as "CR," with no record and no credit for less than satisfactory work. Satisfactory work is defined as the equivalent of "C" grade or better under the letter grading system currently in use by the college. Should a student desire to have a Credit — No Record course changed from "CR" to a letter grade, he must retake the course. Credit — No Record courses are counted in determining the course load for a semester.

*This regulation does not apply to internships in the cooperative education program. All such internships are automatically Credit — No Record.

SCHOLARSHIP REQUIREMENTS

General Policies

Scholarship policy at Clarion State College is formulated by the sub-committee on Academic Standards, which is a sub-committee of the Faculty Senate.

Scholastic standing of students is determined on the basis of quality point system in which a grade of "A" equals 4 quality points per semester hour; "B" equals 3; "C" equals 2; "D" equals 1; and "E" equals 0. The number of quality points earned in a single course for one semester is determined by multiplying the quality point value of the course grade by the number of semester hours in the course; thus, a grade of "A" in a three semester hour course has a quality point value of 12. A student's quality point average at any specific time is determined by dividing the total number of quality points earned in all courses by the total number of semester hours of credit attempted. For example, if a student earns a total of 30 quality points from 15 semester hours of course work in a single semester, his quality point average for the semester is 2.00.

At the end of each semester, a student's quality point average is calculated for that semester and also for all the course work he has taken up to and including the semester just completed. The latter is known as the cumulative quality point average.

Scholarship policy for *two year programs* requires that a student earn a minimum quality point average of 1.75 his first semester and a 2.00 his second semester and thereafter in order to be in satisfactory academic standing. His cumulative quality point average should be 2.00 by the end of the second semester.

In order to remain in the Medical Technology Program, the student

must have a quality point average of not less than 2.3 at the end of the freshman year and a 2.7 at the end of the sophomore year.

Admission to the Medical Technology Program at the college does not guarantee admission to the year in the hospital laboratory. Hospital spaces are limited and admissions standards, which are under the control of the individual hospitals, are quite high.

Teacher Education students, in order to qualify for student teaching, must have a quality point average of at least 2.00 in all fields in which they are seeking certification and a cumulative quality point average of 2.00 for all their academic work. They must also have completed satisfactorily the general education requirement in English. Students having six or more semester hours of reported failure in a field of certification or in professional education courses shall not be assigned to student teaching.

All candidates for undergraduate degrees must have a cumulative average of 2.00 for all academic work and must have met the general education requirement in English in order to qualify for graduation.

Good Academic Standing

Students who are making satisfactory progress toward the completion of their degree requirements are in good academic standing.

In order to be in good standing, a baccalaureate student must earn a minimum quality point average of 1.50 in his first semester; 1.75 in his second and third semesters; and 2.00 in his fourth semester and thereafter. His cumulative quality point average should also be 2.00 by the end of the fourth semester.

Academic Probation

If at the end of any semester a student has fallen below the required standard in either his/her semester or cumulative average, he/she is placed on academic probation effective the first semester of attendance immediately following.

A student on academic probation who achieves a satisfactory semester average is continued on probation the following semester. However, if a student fails to achieve a satisfactory semester average during the probationary semester and at the same time carries an unsatisfactory cumulative average, he/she is liable for suspension.

Academic Suspension

The following policies are related to academic suspension.

1. In order to give all students an equal opportunity to make up academic deficiencies, no suspensions are enforced at the end of the first semester; all suspensions become effective at the end of the spring semester.
2. To a student who has been notified that he has been placed on academic suspension the following alternatives are available:

   a. He may accept the suspension.

b. He may attend summer sessions at Clarion State College. If he earns the **cumulative** average required by the end of the semester, he will be continued on probation during the fall semester.

c. A student may appeal an academic suspension in writing to the Academic Standards Subcommittee if there is sufficient reason for an appeal. Appeals from suspension may be made only in extenuating circumstances such as verifiable extended illness, death in the immediate family, impossibility of attending summer school, etc. These appeals should be sent to the Office of Academic Services.

3. Students who are placed on probation or suspended are informed by letter, a copy of which is also sent to the student's parent or guardian if the student is a dependent as defined elsewhere in this catalog.

Readmission

To be readmitted following a suspension, a student must apply in writing to the Office of Academic Services at least two months prior to the opening of the semester for which he/she wishes to apply. The Office of Academic Services will pass the application on to the Academic Standards Subcommittee. The letter requesting readmission should state the student's reasons for requesting readmission.

MAXIMUM CREDIT HOUR LOAD

The normal credit hour for undergraduate students in good academic standing is 15 to 18 credit hours per semester. Students on academic probation should not attempt more than 12 to 15 credit hours per semester.

Students wishing to register for 18 to 21 credit hours during any one semester must have a cumulative quality point average of 3.00 or better, or the written permission of the appropriate school dean. Students are required to pay for each credit over 18.

All scholastic standards noted above are subject to change by the college.

UNDERGRADUATE DEGREE PROGRAMS

Clarion State College offers combined academic and professional curricula leading to the undergraduate degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Communication, Bachelor of Science in Education, and Bachelor of Science in Speech Pathology and Audiology, as well as certification for teaching in the public elementary, middle, and secondary schools of the Commonwealth of Pennsylvania.

Additionally, it offers associate degree programs at its Venango Campus in Oil City. See Venango Campus, pp. 127.

SCHOOL OF ARTS AND SCIENCES

Anthropology (B.A.)
Art (B.A.)
Biology (B.A., B.S.)
Chemistry (B.A., B.S.)
Chemistry/Business (B.S.)
Earth Sciences (B.A., B.S.)
Economics (B.A.)
English (B.A.)
French (B.A.)
Geography (B.A., B.S.)
Geography/Planning Technology (B.S.)
German (B.A.)
History (B.A.)
Humanities (B.A.)
Mathematics (B.A., B.S.)
Mathematics/Computer Science (B.S.)
Mathematics/Actuarial Science (B.S.)
Medical Technology (B.S.)
Music (B.M.)
Music Marketing (B.M.)
Natural Sciences (B.A.)
Philosophy (B.A.)
Physics (B.A., B.S.)
Political Science (B.A.)
Psychology (B.A., B.S.)
Russian (B.A.)
Social Sciences (B.A.)
Sociology (B.A.)
Sociology/Anthropology (B.A.)
Sociology/Psychology (B.A.)
Spanish (B.A.)
Speech Communication (B.A.)
Speech Communication & Theater (B.A., B.S.)
Theater (B.F.A.)

SCHOOL OF BUSINESS ADMINISTRATION

All candidates for the Bachelor of Science or Associate Science degree in Business Administration are required to take a broad program of business foundation subjects and then choose a business field of specialization in one of the following majors:

- Accounting (BSBA)
- Business Computer Information Systems (BSBA)
- Economics (BSBA)
- Finance (BSBA)
- Management (BSBA)
- Management/Library Science (BSBA)
- Marketing (BSBA)
- Office Management (BSBA)
- Real Estate (BSBA)
- Business Administration (AA) (see Venango Campus)

SCHOOL OF COMMUNICATION

Communication (B.S.)

SCHOOL OF LIBRARY SCIENCE

Library Science (B.S.Ed.)
Management/Library Science (BSBA)
Library Science/Liberal Arts (B.A.)

SCHOOL OF PROFESSIONAL STUDIES

Teacher Education

Early Childhood Education (B.S.Ed.) certification for grades N-3
Elementary Education (B.S.Ed.) certification for grades K-6
Library Science (B.S.Ed.) certification for grades K-12
Music Education (B.S.Ed.) certification for grades K-12
School Nursing (B.S.Ed.) certification for grades K-12
Special Education (B.S.Ed.) certification for grades K-12
Speech Pathology & Audiology (B.S.Ed.) certification for grades K-12
Secondary Education (B.S.Ed.) certification for grades 7-12

- Biology
- Chemistry
- Communication Arts
- Earth & Space Science
- English
- French
- General Science
- German
- Mathematics
- Physics
- Russian
- Social Studies
- Spanish

Students may also plan their programs to extend their certification to include Environmental Education or Safety Education/Driver Training. A program leading to certification as an Athletic Coach is also available.

Human Services

Habilitative Services (B.S.Ed.)
Nursing (A.S.) — see Venango Campus
Habilitative Services (certificate) — see Venango Campus

GRADUATE DEGREE PROGRAMS

Clarion State College offers 15 graduate level programs leading to the Master of Arts, Master of Business Administration, Master of Education, Master of Science, or Master of Science in Library Science (accredited by the American Library Association) degrees.

Biology (M.Ed.)
Biology (M.S.)
Business (M.B.A.)
Communication (M.S.)
Elementary Education (M.Ed.)
English (M.A.)
History (M.A.)
Library Science (M.S.L.S.)
Mathematics (M.A.)
Mathematics (M.Ed.)
Mathematics (M.S.)
Reading Education (M.Ed.)
Science Education (M.Ed.)
Special Education (M.S.)
Speech Pathology (M.Ed.)

Teacher certificate programs are also available for Instructional Media Specialist, Reading Specialist, and Reading Supervisor.

For more detailed information on graduate curricula and courses, refer to the Graduate School bulletin.

FINANCIAL INFORMATION

(Subject to Change Without Notice)

Summary of approximate costs per academic year (August to May) for undergraduate Pennsylvania residents. Semester charges are one-half the amounts shown. Commuting students pay the same costs except for room and meals. Costs of room and meals may vary for students living in privately-owned residence halls. (Graduate students should check the Graduate Office regarding fees.)

Basic Fee	$ 950.*
Activity Fee	80.
Room and Meals	1,110.
Student Community Building Fee	20.
Est. Cost — Books & Supplies	175.
TOTAL	$2,335.

I. ACTIVITY FEE

This fee, collected from all regularly enrolled students is administered through a student organization approved by the Board of Trustees. It covers the cost of athletic, social, musical, and recreational activities. Students carrying twelve semester hours or more **must** pay this fee. Students taking fewer than twelve semester hours

*For each additional credit over 36 — $39.00 per credit.

may take advantage of the program by paying the fee. The fee, determined and collected by the Clarion Students' Association, is $40.00 each semester. Student Activity Fee for Summer Sessions is $1.00 per week (fees are subject to change). The Activity Fee must be paid prior to or at the time of registration. Checks or money orders covering activity fees must be made payable to CLARION STUDENTS' ASSOCIATION.

A. Activity Fee refunds are governed by the following policy:

Refunds are not granted on an automatic basis. To be eligible for a refund a student must officially withdraw through the Office of Academic Affairs, and also submit in writing a request to the Students' Association Office for a refund.

Upon request, a full refund of the activity fee will be granted to students who have been dismissed from the college for academic reasons.

Partial refunds will be granted to students who have made an official withdrawal from the college based upon a percentage of the paid activity fee according to the following schedule:

SEMESTER WITHDRAWAL

Before registration day	100% refund
1st and 2nd week	80% refund
3rd and 4th week	60% refund
5th and 6th week	40% refund
After 6th week	0% refund

B. Student teachers and internship students practicing outside a 50-mile radius of Clarion as established by the map on file at the Clarion Students' Association Office will be assessed one half of of the activity fee per semester.

C. Student teachers practicing within the 50 mile radius of Clarion will pay the full activity fee.

D. Full time graduate students must pay a $25.00 activity fee each semester. For full time graduate students commuting from outside a 50 mile radius of Clarion the fee is optional.

II. BASIC FEE

A. Basic Fees for Pennsylvania Residents for the academic year amount to $950.00 (students taking 24 to 36 credits). Additional credits over 36 shall be at the rate of $39.00 per credit.

B. Basic Fees for PENNSYLVANIA RESIDENTS, for the semester amount to $475.00 (students taking 12 to 18 credits). Additional credits over 18 shall be at the rate of $39.00 per credit. Part-Time students taking eleven (11) or fewer semester hours of credit during a semester shall pay $39.00 per credit.

C. Basic Fees for Non-Pennsylvania Residents for the semester amount to $890.00 (students taking 12 to 18 credits). Additional credits over 18 shall be at the rate of $71.00 per credit. Part-time students taking eleven (11) or fewer semester hours of credit during a semester shall pay $71.00 per credit. Checks in the required amounts must be made payable to the COMMONWEALTH OF PENNSYLVANIA.

D. A student who does not have a Pennsylvania domicile is classified as a Non-Resident. The amounts for the activity fee, room and meal charges and costs of books and supplies are the same as for students who are Pennsylvania residents. Domicile is defined as the place where one intends to and does in fact permanently reside.

Determination of Pennsylvania domicile is made on the basis of documentary evidence, statements from disinterested persons and the presumptions set forth below:

1. Continuous residence in Pennsylvania for a period of 12 months prior to registration creates a presumption of domicile.
2. A person attempting to establish domicile must have citizenship or proof of intention to become a citizen or must have been admitted to the United States on an Immigrant Visa.
3. A minor is presumed to have the domicile of parent(s) or a guardian.
4. A member of the Armed Forces who was domiciled in Pennsylvania immediately preceding entry into government service and who has continuously maintained Pennsylvania as a legal residence, will be presumed to have a Pennsylvania domicile.
5. A student receiving a scholarship or grant dependent upon domicile from a state other than Pennsylvania, is not domiciled in Pennsylvania.

Examples of factors which may provide convincing documentary evidence include purchase or lease of a permanent independent residence, payment of appropriate state and local taxes, transfer of bank accounts, stock, automobile, and other registered property to Pennsylvania, driver's license, agreement for permanent full time employment, membership in organizations, voter's registration, statement of intention to reside indefinitely in Pennsylvania, statement from parent(s) or guardian setting forth facts to establish a minor's financial independence and separate residence.

A student may challenge residency classification by filing a written petition with the Business Office. If a Student is not satisfied with the decision of the Business Office, an appeal may be made to the Vice President for Finance. If the answer is still unsatisfactory, a student may take a written appeal to the office

of the Secretary of Education. His decision on the challenge shall be final.

E. Part-Time and Summer School Fees

Both Pennsylvania and Non-Pennsylvania residents pay $39.00 per semester hour.

For meals and room the charge is $170.00 per five-week session.

Books and Supplies are estimated at $25.00 per five week session.

III. ROOM FEE (Private residence hall charges may vary.)

A. For meals, furnished room, heat and light the charge will be $1,110.00 for the academic year. No reduction shall be allowed for absences from the college.

B. Students are responsible for damage, breakage, loss, or delayed return of college property. The charges shall be equal to the extent of the loss. Students are also held collectively responsible for damages in common areas of residence halls.

C. The rental contract for college residence halls shall be for the semester, mid-term graduates or student teachers excluded.

D. For students rooming off campus in private homes or off-campus residence halls and eating in the college dining room, meals shall be $255.00 per semester.

E. Cost of meals for transients: breakfast, $1.25; lunch, $1.75; dinner, $2.25.

IV. MISCELLANEOUS FEES

A. Deposits. Students who plan to return to college in the fall must pay a non-refundable student activity fee before they are permitted to preregister for the fall semester. Certified check or money order should be payable to Clarion Students' Association. The student's name should be printed in the lower left corner of the check or money order. PLEASE DO NOT MAIL CASH. Residence Hall students are required to make a non-refundable deposit of $50.00 to reserve a room for the fall semester. Payment must be by certified check or money order. Information concerning this deposit will be received from the Office of the Vice President for Student Affairs. Application for admission as either freshman or transfer student must be accompanied by a $10.00 fee to cover the cost of processing, interviewing, and admission. The fee will not be credited to the student's account as a part of payment of basic, housing, or other fees. An additional fee of $50.00 must be paid upon receipt of notice of approval of the application. This $50.00 fee is not refundable, but will be applied to the student's basic fee upon registration. Certified checks or money orders for these amounts must be made payable to the Commonwealth of Pennsylvania.

B. Diploma Fee. A fee of $5.00 is paid by each degree candidate to cover the cost of executing his diploma.

C. Late Registration Fee. Each student registering after the date officially set for registration will be required to pay a late registration charge of $10.00. The same regulation shall apply to students who do not complete registration on assigned days. When permission for late registration has been secured from the Business Manager because of illness or any other unavoidable cause, this fee may be waived. Registration is not complete until all fees are paid.

D. Transcript Fee. One copy of a transcript of credits earned at Clarion State College will be issued free of charge. A charge of $1.00 is made for each subsequent transcript. Persons desiring to have their credits transferred to another institution should give the name and address of such institution. Transcripts will not be issued to anyone who has unpaid bills, library fines, or damage fees on his account.

E. Student Community Building Fee. This fee is mandated by State law to retire the general obligation bonds for the Riemer Student Community Building. The fee is $10.00 per semester for undergraduate students taking 10 or more credits. For part-time students, the fee is pro-rated as follows: 7-9 credits $5.00, 1-6 credits $2.50 per semester. A graduate student taking nine (9) or more credits is considered full-time and will be charged $10.00. For summer sessions the fee per session: 1-4 credits $1.00, over 4 credits $2.00.

F. Medical Service Fees. A charge of $5.25 per day will be assessed to students without a food contract at Chandler Dining Hall to cover the cost of meals while the student is in the infirmary. Students will be charged for any medicines not stocked by the infirmary. They have the privilege of employing their own physician at personal expense if they desire. If in the case of a serious illness or injury, the college physician or nurse believes that transportation is necessary to the infirmary or to a local or home hospital, such transportation will be provided by ambulance, but the expense must be borne by the student.

V. PRIVATE MUSIC INSTRUCTION FEES

Students enrolled as Music Majors pay no extra fees for required private music instruction in voice, piano, band, or orchestra instruments nor for use of pianos or other instruments for practice.

For all students other than Music Majors, the charge for private

lessons in voice, piano, band, or orchestra instruments is $32.00 per semester for one lesson per week. Rental of a piano for practice one period per day is $6.00 per semester. Rental of band or orchestra instruments is $8.00 per semester.

VI. PAYMENT OF FEES

ALL FEES MUST BE PAID IN ADVANCE AND NO STUDENT AGAINST WHOM THERE ARE ANY UNPAID CHARGES SHALL BE ALLOWED TO ENROLL, GRADUATE, OR RECEIVE A TRANSCRIPT OF RECORD. THE CHECK FOR FEES SHOULD BE MADE PAYABLE TO THE COMMONWEALTH OF PENNSYLVANIA.

When a check is presented covering fees, the student is responsible to see that funds are available when the check is presented for payment at the bank. If an uncollectible check is returned by the bank, the Business Office Return Check Recovery Section will notify you that your check was uncollectible, add a $10.00 penalty, and request that a certified check or money order be sent within ten (10) days. Furthermore, any student that has a delinquent account, either because of non-payment of fees or due to the writing of a worthless check for payment of same, will not be permitted to attend classes or receive current grades or transcripts until all accounts are paid in full.

VII. REFUNDS

Students may be eligible for a partial refund when they withdraw from the college. A student eligible for a refund must officially withdraw through the Office of Academic Services and also submit a written request for a refund to the Business Office.

For refund purposes, each "week" will be a college work week and will end on Friday at the close of college business hours. The first week will end on the first Friday following the start of classes.

The refund schedule will also apply to all part-time students reducing their credit hour load.

Except for a minimum forfeit of advanced deposits, refund for the room fee and tuition will be based on the following schedule.

SEMESTER WITHDRAWAL

1st and 2nd Week	80% Refund
3rd Week	70% Refund
4th Week	60% Refund
5th Week	50% Refund
After 5th Week	No Refund

Students withdrawing before the start of the first class day of the semester will be entitled to consideration for a 100% refund. A student may be eligible for consideration for a meal ticket refund after returning his/her meal ticket to the Business Office.

There will not be any refund of the late fee or student community building fee.

FIVE-WEEK SUMMER SESSIONS

1st Week	60% Refund
2nd Week	40% Refund
After 2nd Week	No Refund

All basic fees, special fees, room fees, meal privileges, and activity fees are due and payable on a full semester basis upon registration. The college does not defer payment. Students who cannot pay all charges in full at registration should arrange a loan at their bank. A student whose educational expenses are being partially paid by a National Direct Student Loan, Basic Educational Opportunity Grant, or Pennsylvania Higher Education Assistance Agency Scholarship will be required to pay the balance of the charges due in order to complete registration and avoid the $10.00 late registration fee. The college does not assume responsibility for charges by privately-owned residence halls or rooming facilities.

FEE CHARGES PER SEMESTER
Subject to Change Without Notice
(Does Not Include Activity Fee)

COMMUTING STUDENTS

Basic — 12 to 18 Credits	$475.
Each additional credit over 18 — $39.00	
Student Comm. Bldg. Fee	10.
TOTAL	$485.

RESIDENT STUDENTS*

Basic — 12 to 18 credits	$475.
Each additional credit over 18 — $39.00	
Student Comm. Bldg. Fee	10.
Room and meals	$555.
TOTAL	$1,040.

MEAL STUDENTS ONLY

Basic — 12 to 18 credits	$475.
Each additional credit over 18 — $39.00	
Student Comm. Bldg. Fee	10.
Meals	$255.
TOTAL	$740.

*Private residence hall charges may vary.

FINANCIAL AID SERVICES

Financial assistance is available to students in the form of scholarships, grants, loans, and employment. Detailed information and necessary application forms may be secured from the Office of Financial Aid. Since the determination of eligibility for assistance is based on an analysis of a current Needs Analysis Application, students are encouraged to request their parents to file a complete Financial Aid Form statement with the College Scholarship Service, Princeton, New Jersey, and designate Clarion State College to receive a copy. Clarion adheres to the college financial aid principles as set forth by the College Scholarship Service. The PHEAA Composite Form may also be used.

SCHOLARSHIPS, GRANTS, AND LOANS

SCHOLARSHIPS AND GRANTS

PENNSYLVANIA HIGHER EDUCATION ASSISTANCE AGENCY GRANTS. The determination of recipients of these grants is made by the Agency. The grants vary in amount and are based on the financial need of students. Application forms may be secured from the Agency or from high school guidance counselors.

BASIC EDUCATIONAL OPPORTUNITY GRANTS. Federal grants available to undergraduate students. Recipients determined by the U. S. Office of Education based on financial need.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS. Federal grants available to students with "exceptional financial need" as defined by regulations of the U. S. Office of Education. The grants may not exceed one-half of the total amount of financial aid provided for the student and must be matched in an equal amount by scholarship, loan, or work grant.

NURSING SCHOLARSHIPS. Federal grants to a maximum of $1,500 are available to students with "exceptional financial need," as defined by regulations of the U. S. Department of Health, Education, and Welfare, who are enrolled in the Associate Degree Nursing Program. Application forms may be secured from the Office of Financial Aid.

JAMES J. ARNER SCHOLARSHIP. A $300 award to a worthy student made available by the Arner Family, and administered by the Alumni Association through the Alumni Board of Directors. For further information, contact Mr. Ronald Wilshire, Alumni Director.

H. W. COLEGROVE SCHOLARSHIP FUND. A trust fund established by Mr. H. W. Colegrove at the First National Bank of Port Allegheny provides for two scholarships of $100 each per year to be awarded to students from McKean County. Students from this county may secure information concerning these scholarships from the Office of Financial Aid.

CHARLES F. FLACK SCHOLARSHIP. A $250 award in honor of Charles F. Flack, retired Director of Library Science, to be given to a student selected by the Library Science Department at Clarion. Scholarship is supported by William LaFranchi, a graduate of Clarion and presently Librarian at Indiana University of Pennsylvania.

MARIAN RENN MARSHALL FUND. This fund, established as a memorial to Marian Renn Marshall, is designed to provide emergency financial aid to students enrolled in Speech Pathology and Audiology for the facilitation of special projects. Specific information concerning requirements for obtaining assistance may be secured from the Coordinator of Speech Pathology and Audiology.

MARY STERRETT MOSES AND ELBERT RAYMOND MOSES, JR. AWARD. This gift of money is to be awarded to a graduating senior in Speech Communication and Theater who plans to enter a graduate program. A strong academic background and contributions to the Department must have been demonstrated by the recipient.

ELVINA C. MOYER SCHOLARSHIP FUND. This scholarship fund was established by the will of the late Anna B. Lilly to be financed through income received from funds held in trust. Although the scholarship varies from year to year, it now approximates $180. The selection of a student to receive the scholarship is made by the faculty of the College.

THE ARMY RESERVE OFFICER'S TRAINING CORPS (ROTC) offers one, two, and three year scholarships to students enrolled in the ROTC program at Clarion. Army ROTC Scholarships pay for college tuition, textbooks, activity fees, laboratory fees, and other purely academic expenses plus a $100 a month subsistence allowance paid to the student. Applicants compete nationally with other ROTC students. Should a scholarship be granted, the student incurs a 4-year active duty military obligation as a commissioned officer.

A. BRUCE TAYLOR SCHOLARSHIP FUND. A former Clarion State College athlete and 1952 graduate of the College, Mr. Taylor has established a $10,000 scholarship fund to be administered at the rate of $1,000 annually over a ten year period to a deserving wrestler in the program at Clarion. Awards based on scholarship, citizenship, and athletic ability.

GINNY THORNBURGH RECOGNITION SCHOLARSHIP in the amount of $300 is awarded to an outstanding special education junior or senior on the bases of scholarship, citizenship, contributions to organizations, and service to exceptional individuals.

CSC ALUMNI SCHOLARSHIPS. Two $250 scholarships awarded each year to students whose parent or parents are graduates of the college. Recipients are selected by the Board of Directors of the Alumni Association.

CLARION STATE COLLEGE SCHOLARSHIP FUND. A number of four-year scholarships of $100.00 each year ($400.00 for four years) are available to incoming freshmen. The Financial Aid Committee will select recipients on the basis of high school achievement, entrance examination results, extra-class activities, and personal interviews (for finalists). Applicants for these scholarships must have been accepted for admission to the college. Application forms, which may be secured from the Director of Admissions, must be received by March 1.

OIL CITY ADELPHOI CLUB SCHOLARSHIPS. Two scholarships of $250 per year are awarded by the Oil City Adelphoi Club to selected students attending Clarion State College on the Venango Campus. Information concerning the scholarships may be obtained from high school guidance counselors or the Secretary of the Oil City Adelphoi Club.

OIL CITY LIONS CLUB SCHOLARSHIP. An annual scholarship of $250 is awarded by the Oil City Lions Club to a selected student from any Oil City high school or the Cranberry Area High School who attends Clarion State College on the Venango Campus. Information concerning the scholarship may be obtained from high school guidance counselors or the Secretary of the Oil City Lions Club.

CLARENCE E. AND JANET H. LESSER SCHOLARSHIP FUND. Established by the will of Clarence E. Lesser, this trust fund provides scholarships to assist deserving students at Clarion State College in amounts ranging up to full basic fee. The annual awards may be renewed, subject to the availability of funds, at the discretion of the Selection Committee which supervises the scholarships. Talented candidates, both men and women, will receive preferential consideration for awards to be made in the following areas: Creative Writing (English), Music (String Instruments), Intercollegiate Athletics, and a fourth category to be selected by the committee each year. High school students who have exhibited high interest and achievement are urged to apply. Criteria for selection are talent, academic promise, and leadership potential. Application blanks available in the Office of Financial Aid, Clarion State College, Clarion, PA 16214. Completed applications should be sent to: Committee for the Lesser Scholarship Fund, Clarion State College, Clarion, PA 16214. The deadline for receipt of applications and accompanying documents is April 15 of each academic year.

QUAKER STATE NURSING SCHOLARSHIPS. Quaker State Oil Refining Corporation has established two $500 tuition grants for full-time students enrolled in the second year of the Associate Degree Nursing Program. A Selection Committee will nominate students on the basis of potential professional skills, scholastic achievement, and financial need. Awards will be made by a Scholarship Committee composed of representatives of Quaker State Oil Refining Corporation, Clarion State College, and the Oil City Hospital.

CO-RESIDENT IN THE CLARION SUPERVISED APARTMENTS FOR HANDICAPPED ADULTS conducted by the Department of Special Education. Upperclass students enrolled in the B.S. degree program in Habilitative Services for the Handicapped are eligible as candidates for appointment as co-residents. The stipend is $25.00 per week plus payment of academic and activities fees and room and board.

LOANS

NATIONAL DIRECT STUDENT LOAN PROGRAM. This program provides for loans to students who have a demonstrated need for financial assistance and who are in good academic standing. Loans totaling more than $250,000 were granted to students under this program during the 1978-79 college year.

To be eligible for consideration for a loan, a student must complete an application form, have a current Needs Analysis Form on file in the Office of Financial Aid, be a citizen of the United States or have declared his intention to obtain citizenship, and be enrolled or accepted for enrollment as a student.

These loans, which are non-interest bearing while a student is enrolled, are available to a maximum of $2500 for the first two years with a limit of $5,000 for the bachelor's degree. Repayment of the loan may extend over a ten-year period beginning nine months after withdrawal or graduation from the College. Repayments are to be made on a quarterly basis with interest accruing at the rate of three per cent per year. The first quarterly payment of principal and interest is due one year after graduation or withdrawal.

In specified teaching situations, as much as fifteen per cent of the loan may be canceled for each year of teaching. The borrower's obligation to repay the loan is canceled in the event of death or permanent and total disability.

Completed applications for National Direct Student Loans should be submitted to the Office of Financial Aid.

NURSING STUDENT LOAN PROGRAM. This program provides loans to students enrolled in the Associate Degree Nursing Program.

To be eligible for consideration for a loan, a student must complete an application form, have a current Needs Analysis Form on file in the Office of Financial Aid, be a citizen of the United States or have filed intent to become a permanent resident of the United States, be enrolled or accepted for enrollment as a full-time student, and have financial need for the amount of the loan.

These loans, which are non-interest bearing while a student is enrolled, may not exceed $1,500 in an academic year. Repayment provisions are similar to those for National Direct Student Loans. Cancellation features are also provided.

PENNSYLVANIA HIGHER EDUCATION ASSISTANCE AGENCY GUARANTEED LOANS. Loans to a maximum of $2500 per academic year to a limit of $7,500 for students in good academic standing are generally available from local banks and savings and loan associations. The loans are guaranteed by the Agency. Application forms and detailed information may be secured from the financial institution from which a loan will be requested.

CLARION STATE COLLEGE FOUNDATION REVOLVING LOAN FUND — EMERGENCY LOAN. The Foundation has established an emergency loan fund for educational purposes only, which is available to full-time students in good standing. Loans may be granted to a maximum of $200.00 and must be approved by the Director of Financial Aid. The loans are interest free for six months and thereafter interest is added at the rate of 6 per cent per annum with a minimum interest charge of $5.00. Loans plus interest are due and payable prior to graduation or withdrawal from College. Application forms may be secured from the Office of Financial Aid.

BOWL LOAN FUND. Income received from a football bowl game in which the Clarion State College team participated several years ago and contributions from friends of the College made possible the establishment of this loan. Short-term loans to a maximum of $150 are available to students who are in financial need, are enrolled as full-time students with at least fifteen semester hours of credit earned at Clarion State College, and are approved by a coach of a varsity sport, the Director of Athletics, and the Director of Financial Aid. Application forms may be secured from the Office of Financial Aid.

CLARION STATE COLLEGE FOUNDATION REVOLVING LOAN FUND — SHORT-TERM SMALL LOAN. The Foundation has also established a short-term small loan fund which is available to full-time students. Loans are granted to a maximum of $20.00, are interest free and must be repaid within thirty days. The loans are approved by the Director of Financial Aid.

MARY ANN TRANCE LOAN FUND. Established as a memorial to the late Mary Ann Trance by her college friends and her mother, this fund of $200 is available to a senior student. The loan available from the fund is non-interest bearing and repayable after graduation. Information concerning this loan may be secured from the Office of Financial Aid.

EMPLOYMENT

Employment on a part-time basis is available to the extent that funds are provided for this purpose by the Federal government and the Commonwealth of Pennsylvania. The assignment of students to part-

time campus positions is generally based on financial need; however, it should be recognized that such employment will not be sufficient to meet the total expenses of attending college.

FEDERAL WORK-STUDY PROGRAM. The College participates in the Federal Work-Study Program which permits eligible students to work a maximum of 15 hours per week while classes are in session. A limited number of positions are available under this program for full-time employment during vacation periods. Eligibility requirements for employment include United States citizenship, demonstrated financial need as determined by a current Needs Analysis Form, and satisfactory academic standing.

STATE EMPLOYMENT PROGRAM. A limited number of part-time positions are available under this program to students with satisfactory academic standing and some financial need. Most student positions are limited to a maximum of 15 hours of employment per week. A current Needs Analysis Form is required.

COLLEGE CURRICULA

All undergraduate curricula, with the exception of the two-year Associate of Science curriculum in Nursing and Associate of Arts in Business Administration, lead to a bachelor's degree and have a common area of 48 semester hours in general education. The general education distribution is intended to encourage broad choice within the humanities, the natural sciences and mathematics, and the social sciences for the development of a strong liberal education. Each student should select his general education program carefully in consultation with his faculty advisor.

GENERAL EDUCATION DISTRIBUTION

The general education course distribution listed on these pages became effective for students whose initial enrollment at Clarion began on August 25, 1975, or thereafter. The distribution is not applicable to students enrolled before the above date. Those students should follow the general education distribution in effect at the time of their admission.

The minimum credit hour requirement in general education is 48 semester hours distributed as follows.*

*The distribution may be altered somewhat for certain major fields.

I. Modes of Communication ..... (minimum) 12 s.h.
English Composition .....3-6 s.h.
Courses to be selected from two of the following:
Computer Science, Elementary Foreign Language,*
Logic, Mathematics,** Speech Communication*** 6-9 s.h.
The following English courses may be entered in Modes of Communication: 110, 111, 200, 201, 202, 203, 204, and 206.
The following SCT courses may be entered under Modes of Communication: 113, 114, 251, 256, 258, and 264. Logic may be entered under Modes or Humanities; Math. under Modes or Natural Science.

II. Natural Sciences and Mathematics ..... (minimum) 9 s.h.
Courses to be chosen from at least two of the following fields:
Biology, Chemistry, Mathematics,** Earth and Space Science, Physical Science, Physics

III. Social Sciences ..... (minimum) 9 s.h.
Courses to be selected from at least two of the following fields:
Economics, History, Political Science, Psychology, Sociology, Geography, Anthropology

IV. Humanities ..... (minimum) 9 s.h.
Courses to be chosen from at least two of the following fields:
Art, English, Foreign Language, Literature, Music, Philosophy, Speech Communication, Theater
Any English courses except 110 and 111 may be entered under Humanities.
Any course with an SCT prefix may be entered under Humanities.
Logic may be entered under Modes or Humanities; Math. under Modes or Natural Science.

V. Personal Development and Life Skills ..... (minimum) 9 s.h.
Health .....2 s.h.
Physical Education Activity Courses .....2 s.h.
(Maximum of 2 credits in physical education activity courses counted toward graduation)

Courses chosen from General Studies or other disciplinary areas or approved student activities for credit... (minimum) 5 s.h.

*May not be used to meet foreign language requirement for the B.A. degree.
**Credit cannot be earned for Math 100 if it is taken after successful completion of, or concurrently with, any other course in mathematics.
***Selection is limited to the following courses: SCT 113, 114, 251, 256, 257, 258, 264.

SCHOOL OF ARTS AND SCIENCES

John J. Bodoh, Ph.D., Dean

Office: Carrier Administration Building
Telephone: 226-2225

The School of Arts and Sciences offers the liberal arts curriculum of the College, which is intended to develop the intellectual, aesthetic, and moral capabilities of the individual. To this end, the School offers courses and other experiences which foster the ideals of a liberal education, viz., intellectual curiosity, critical perception, judgment, intellectual and moral discipline, a sense of justice and a commitment to the commonweal, sensitivity, imagination, and creativity, and a facility in the use of language. In short, a liberal education is a search for truth, goodness, and beauty. These ideals develop from a broad base of understanding in literature and history, science, and the arts, and the liberally educated man or woman is widely knowledgeable about the world and society.

A liberal education is traditionally prerequisite for entry into such fields as law, medicine, religion, education, politics and public service, any profession, in fact, in which the discernment of truth, a knowledge of values, and moral responsibility are inherent requirements.

The liberal arts graduate has, therefore, a solid foundation upon which to build a life of great personal satisfaction, social acceptance, and economic security.

The specific requirements of each major program in the liberal arts curriculum are detailed in the pages that follow. In addition to the requirements of the major, all students must complete the general education requirements of the college (pp. 53-54) and all B.A. candidates must present a foreign language by examination, by course work to the level of second year, or by participation in the summer program in Mexico (p. 31).

The School of Arts and Sciences is organized into thirteen departments. Most major programs are administered by a department but some are administered in the office of the dean.

DEPARTMENT OF ANTHROPOLOGY, PHILOSOPHY, POLITICAL SCIENCE, AND SOCIOLOGY

Emmett D. Graybill, Jr., M.A., Chairman

Professors: Konitzky, Takei, Tu; *Associate Professors:* Bertsch, Graybill, Rath, Somers, Straffin, VanBruggen, Zallys

PHILOSOPHY, B.A. 42 credits

Required: Phil. 111, 212, 255, 256, and 15 credits of philosophy electives chosen in consultation with a departmental advisor, with Phil. 352 and 353 recommended. In addition to these 27 credits of philosophy, 15 credits from among the following fields are required: art, English, foreign language, music, speech, and theater.

POLITICAL SCIENCE, B.A. 51 credits

Required: P.S. 210, 211, 353, 365, or 366 and 18 credits of political science electives. In addition to these 30 credits in political science, the following courses are required: Econ. 211, 212; Soc. 211, 300; and 9 credits from history, anthropology, or psychology.

SOCIOLOGY-ANTHROPOLOGY, B.A. 45 credits

Required: Soc. or Anth. 211 (Anth. mandatory for an emphasis in anthropology) and 21 credits in sociology and/or anthropology electives chosen in consultation with a departmental advisor. In addition to these 24 credits in sociology-anthropology, the following courses are required: Econ. 211, 212; Hist. 111, 112, 213; P.S. 210, and 211.

SOCIOLOGY — PSYCHOLOGY

This interdisciplinary program is administered in the office of the dean.

SOCIOLOGY-PSYCHOLOGY, B.A. 54 credits

Required: Soc. 211, one of 351, 361, or 362, one of 352, 363 or 370 and three courses of sociology electives; Psy. 211, 230, 251 and three courses of approved psychology electives. In addition to these 36 credits in sociology and psychology, 18 credits must be selected representing at least two of the following fields: anthropology, economics, geography, political science.

DEPARTMENT OF ART

Robert D. Hobbs, Ed.D., Chairman

Professors: Baptist, Hobbs; *Associate Professors:* Charley, Edwards, Grosch, Seelye; *Assistant Professors:* Dugan, P-Jobb

ART, B.A. 57 credits

Required: Art 112, 113, 236, 237, 238, 239, and 24 credits in art chosen in consultation with a departmental advisor. In addition to these 42 credits of art, 15 credits representing each of the following fields are required: English (literature), music, philosophy, and speech communication and theater.

DEPARTMENT OF BIOLOGY

William D. Chamberlain, Ed.D., Chairman

Professors: Aharrah, Chamberlain, N. Donachy, Harmon, Kodrich, Mechling, Moore, Twiest, Williams; *Associate Professors:* Dalby, J. Donachy, Linton, Morrow; *Assistant Professors:* Cook, Jetkiewicz, McCaslin, Rutherford

BIOLOGY, B.A. 53 credits

Required: Biol. 153, 154, 201, 202, 203 and 12 credits from approved biology electives. In addition to these 29 credits in biology, the following courses are required: Math 171; Chem. 153, 163, 154, 164, 254, 264; Phy. 251 and 252.

BIOLOGY, B.S. 64 credits

Required: Biol. 153, 154, 201, 202, 203 and 12 credits from approved biology electives. In addition to these 29 credits in biology, the following courses are required: Math 171; Chem. 153, 163, 154, 164, 254, 264; Phy. 251, 252; also 11 credits from the following fields: biology, chemistry, computer science, mathematics, physics. In some instances the student may be advised to substitute Chem. 151, 161, 152, 162, and Chem. 251, 252 for Chem. 153, 163, 154, 164, and Chem. 254 and 264. This is particularly true if the student plans to take additional chemistry beyond the minimum requirement.

MEDICAL TECHNOLOGY, B.S. 78 credits

The Medical Technology program includes an academic preparation of three years at Clarion and a 12-month course of training in a hospital laboratory. Admission to the Medical Technology Program at the college does not guarantee admission to the year in the hospital laboratory. Hospital spaces are limited and admissions standards, which are under the control of the individual hospitals, are quite high. The following courses are required during the three years at Clarion: Biol. 153, 154, 201, 341, 444; Chem. 153, 163, 154, 164, 254, 264, 351 or 352; either Biol. 203 or Chem. 453; Phy. 251, 252; and Math. 171. Students in the program must maintain the following grade point averages: first semester freshmen, 2.0; second semester freshmen and first semester sophomores, 2.5; thereafter 3.0 with a 3.25 in the natural sciences.

Students pursuing a major in medical technology will be awarded a maximum of 32 credits of life-experience in hospital laboratory upon presentation of a transcript from a school for clinical laboratory sciences accredited by NAACLS and of a valid CLA registry from the

ASCP together with five years experience in a clinical laboratory. Such students will be eligible to sit for the National Registry exam for medical technologists upon graduation from Clarion State College.

The Biology Department also offers a program in secondary education; see page 105.

DEPARTMENT OF CHEMISTRY

Paul E. Beck, Ph.D., Chairman

Professors: Beck, Bower, J. Laswick, P. Laswick, McElhattan, Sharpe; *Associate Professors:* Krugh, Wollaston; *Assistant Professors:* Brent, Ober

CHEMISTRY, B.A. 61 credits

Required: Chem. 151, 161, 152, 162, 251, 261, 252, 262, 352, 354, 355, 356, 357, and 470. In addition to these 37 credits of chemistry, the following courses are required: Math 171, 172, 271, 272; Phy. 251 or 258, and 252 or 259.

Graduates who have met these requirements will be certified as having completed an approved program as determined by the Committee on Professional training of the American Chemical Society. Chemistry majors planning to attend graduate school should elect advanced inorganic, organic, or physical chemistry. German is the recommended foreign language.

CHEMISTRY, B.S. 73 credits

Required: Chem. 151, 161, 152, 162, 251, 261, 252, 262, 352, 354, 355, 356, 357, and 470. In addition to these 37 credits of chemistry, the following courses are required: Math 171, 172, 271, 272; Phy. 251 or 258, and 252 or 259 plus 12 credits of approved science/math electives.

Graduates who have met these requirements will be certified as having completed an approved program as determined by the Committee on Professional Training of the American Chemical Society. Chemistry majors planning to attend graduate school should elect advanced inorganic, organic, or physical chemistry.

CHEMISTRY major with BUSINESS minor, B.S. 75 credits

Required: Chem. 151. 161, 152, 162, 251, 261, 252, 262, and 7 credits of chemistry electives numbered 300 or above; Bus. Ad. 151, 360, 220, 102; Econ. 221 or Math 221 or 456; and 9 credits chosen from among the following: Bus. Ad. 152, 240, 253, 370, 471, 351, 460, 461, 463, 321, 420, 421, 424, 425; Econ. 310, 351, 340 and 361. In addition the

following are required: Math 171, 172, 271, or 132; Phy. 251, 252; Econ. 211, and 212.

The Chemistry Department also offers a program in secondary education; see page 105.

EARTH SCIENCE

EARTH SCIENCE, B.A. and B.S. See Department of Geography and Earth Science.

ECONOMICS

Instruction for this program is provided by the Department of Economics in the School of Business, but the program is administered in the office of the dean of Arts and Sciences.

ECONOMICS, B.A. 51 credits

Required: Econ. 211, 212, and 24 credits chosen in consultation with a departmental advisor. In addition to these 30 credits of economics, the following courses are required: Hist. 111, 112, 213; P.S. 210, 211; Anth., Psy., or Soc. 211, and one additional course in anthropology, psychology, or sociology.

DEPARTMENT OF ENGLISH

Edward S. Grejda, Ph.D., Chairman

Professors: Barber, Dennis, Grejda, Knickerbocker, Park, Redfern, Shumaker; *Associate Professors:* Caesar, Greco, Newman, Reinhardt, Sheraw, Wilson; *Assistant Professors:* Clark, Karl; *Instructors:* Jeschke, MacBeth, Osterholm

ENGLISH, B.A. 54 credits

Required: Eng. 221, 222; two of 320, 322, 385; 230, one of 252, 253, 457, 458; one of 301, 303, 305, 307, 345, 412, 413; one of 309, 311, 332, 333; one other course in English literature; and 18 credits of English chosen in consultation with a departmental advisor. In addition to these 42 credits of English, 12 credits representing each of the following fields are required: art, music, philosophy, and speech communication and theater.

The English Department also offers a program in secondary education; see page 107.

DEPARTMENT OF GEOGRAPHY & EARTH SCIENCE

Margaret M. Kordecki, M.A., Chairperson

Professors: T. Buckwalter, Leavy, D. Totten; *Associate Professors:* Humphrey, Kordecki, Oakes, G. Shirey; *Assistant Professor:* Samol

EARTH SCIENCE, B.A. 50 credits

Required: E.S. 200, 252, 253, 258, 351; Geog. 352, 451; and 12 credits from approved earth science/geography electives. In addition to these 30 credits of earth science/geography, the following are required: Math. 171, 172, and 12 credits from the following fields: biology, chemistry, mathematics, and physics.

EARTH SCIENCE, B.S. 42 credits

Required: E.S. 200, 252, 253, 258, 351; Geog. 130, 352, 451, 456; and 6 credits of earth science electives. In addition to these 30 credits of earth science/geography, 12 credits from among the following courses are required: Biol. 153, 154; Chem. 153, 154, 163, 164; Math. 171, 172, 221; and Phy. 251, 252.

GEOGRAPHY, B.A. 57 credits

Required: E.S. 111, Geog. 130, 251, 257, 259, 354, 356, and 9 credits from among the following: Geog. 254, 355, 357, 452, 453, 454, and 459. In addition to these 30 credits of geography, the following courses are required: Econ. 211, 212; Hist. 111, 112, 213; P.S. 210, 211; Anth., Psy., or Soc. 211 and one additional course in anthropology, psychology, or sociology.

GEOGRAPHY, B.S. 42 credits

Required: E.S. 111; Geog. 130, 251, 259, 451, 455, 456, 459, and 6 additional credits in geography. In addition to these 30 credits in geography, 12 credits from the following fields are required: anthropology, economics, history, political science, psychology, sociology, computer science, and mathematics with Comp. Sci. 101, 102 and Math 221 recommended.

GEOGRAPHY (Planning Technology Emphasis), B.S. 51 credits

Required: Geog. 259, 404, 406, 408, 410, 451, 456, 459; E.S. 412. In addition to these 27 credits in geography/earth science, the following courses are required: P.S. 375; Soc. 211, 363, 370; Econ. 211, 212, 414; and Math. 221.

The Geography and Earth Science Department also offers a program in secondary education; see page 107.

FRENCH

FRENCH, B.A. See Department of Modern Languages and Cultures.

GERMAN

GERMAN, B.A. See Department of Modern Languages and Cultures.

DEPARTMENT OF HISTORY

R. Suzanne Van Meter, Ph.D., Chairperson

Professors: Day, Duffy, Haines, Khan, Swecker, S. VanMeter; *Associate Professor:* Sumner; *Assistant Professors:* Abate, Crawford; *Instructors:* Dunn, Sims

HISTORY, B.A. 36 credits

Required: Hist. 111, 112, 213, and 18 credits of history electives. In addition to these 27 credits of history, one course is required from each of the following fields: political science, economics, sociology/anthropology.

HUMANITIES

This interdisciplinary program is administered in the office of the dean.

HUMANITIES, AREA MAJOR, B.A. 54 credits

Required: 54 credits from among the following fields: art, English (not including 110 or 111), foreign language (beyond the first year), music, philosophy, speech communication and theater. Each of the fields must be represented by at least one course and a sufficient number of courses at the 300 or 400 levels must be elected to promote a scholarly interest in at least one field.

LANGUAGE AND AREA STUDIES PROGRAM

This program is jointly offered by the departments of Modern Languages and Cultures, Economics, History, and A.P.P.S., and is administered in the office of the dean. It is not a degree program but a combination of courses leading to a notation on the student's official record concomitant with a major in any one of the participating departments. The requirements are as follows: proficiency in a foreign language at the second-year level; 24 credits (not including first and second year language) in the following departments, with each department represented: Modern Languages and Cultures, Economics, Geography, History, A.P.P.S.

LIBRARY SCIENCE

The liberal arts curriculum at Clarion State College does not include a program in library science but liberal arts students, regardless of their major may, by taking the following courses: L.S. 257, 258, 260, 357, qualify as provisional librarians under the Pennsylvania Public Library Code. Additional credits may be elected in consultation with the Dean of the School of Library Science.

DEPARTMENT OF MATHEMATICS

Stephen I. Gendler, Ph.D., Chairman

Professors: Bezak, Cronin, Gendler, Ossesia, Singh; *Associate Professors:* Henry, Kopas, Lowe, Mitchell, Rhoads, Ringland, Wimer; *Assistant Professors:* Cliff, Engle, Freed, Linnan, Northey, Pagano

MATHEMATICS, B.A. 40 credits

Required: Math. 171, 172, 271, 272, 371, 372, 471, 472, and 12 credits of math electives in courses numbered 300 or above.

MATHEMATICS (Applied Mathematics Option), B.S. 46 credits

Required: Math 171, 172, 271, 272, and 24 credits in math electives from courses numbered 300 and above. In addition to these 40 credits of mathematics, two second-level courses in the natural science from a list approved by the Mathematics Department are required. Proficiency in computer programming must also be demonstrated, either by course work or by examination.

MATHEMATICS (Computer Science Emphasis Option), B.S. 58 credits

Required: Math 171, 172, 271, 272, 371, 372, 360, 370 and 12 credits in math electives. In addition to these 40 credits of mathematics, the following courses are required: C.S. 101, 102, 201, 301, one computer science elective, and Phil. 112, or Math. 369.

MATHEMATICS (Actuarial Science Option), B.S. 58 credits

Required: Math 171, 172, 271, 272, 360, 370, 352, 456, 350, and 9 credits in math electives. In addition to these 40 credits of mathematics, the following courses are required: Econ. 211, 212; Bus. Ad. 151, 152, 373, and an elective in insurance. Proficiency in computer programming must also be demonstrated, either by course work or by examination.

The Mathematics Department also offers a program in secondary education; see page 110.

DEPARTMENT OF MODERN LANGUAGES AND CULTURES

Pierre N. Fortis, Ph.D., Chairman

Professors: G. Bays, R. Bays, C. Totten; *Associate Professors:* Fortis, Garcia, Hegewald, Junod, Masterson, Nikoulin; *Assistant Professor:* Diaz

FRENCH, B.A. 42 credits

Required: Fr. 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252 excluding Fr. 300. In addition to these 30 credits of French, Eng. 252; and 9 additional credits in French, geography, and history, and/or Eng. 457 and 458, and/or other courses by advisement are required.

GERMAN, B.A. 42 credits

Required: Ger. 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252 excluding Ger. 257, 258, and 300. In addition to these 30 credits of German, Eng. 252 and 9 additional credits in German, geography and history and/or Eng. 457 and 458, and/or other courses by advisement are required.

RUSSIAN, B.A. 42 credits

Required: Russ. 251, 252, 255, 256, 351, and 16 additional credits from courses numbered above 252 excluding Russ. 253. In addition to these 34 credits of Russian, English 252 and 5 additional credits in Russian and/or geography, history, English are required.

SPANISH, B.A. 42 credits

Required: Span. 251, 252, 255, 256, 351, and 15 additional credits from courses numbered above 252 excluding Span. 300. In addition to these 30 credits of Spanish, Eng. 252 and 9 additional credits in Iberian and/or Latin American geography and history, and/or Eng. 457 and 458 and/or other courses by advisement are required.

The Department of Modern Languages and Cultures also offers several programs in secondary education; see pages 108, 110, 112, 115.

DEPARTMENT OF MUSIC

Milutin Lazich, M. Mus., Chairman

Professors: Connor, Farnham, Michalski, R. VanMeter; *Associate Professors:* Berberian, Black, Bohlen, Hall, McDonald, Mitchell, Pesche; *Assistant Professors:* Lassowsky, Lazich, McLean, Urrico, Wells

MUSIC, B.M. Performance 70–71 credits

Required: Mus. 135, 136, 235, 236, 151, 152, 251, 252, 32 credits of applied music, and a music elective chosen in consultation with a departmental advisor. In addition, participation in a musical organization, without credit, is required for a minimum of eight semesters.

MUSIC, B.M. Marketing 70–71 credits

Required: ACTG 151, MGMT 320, MKTG 360, 362, 363, 460, 468, Mus. 135, 136, 235, 236, 151, 152, 251, 252, 6 credits of applied music (7 without the optional internship Co-op 420). In addition, participation in one musical organization for 4 semesters is required.

The Music Department also offers a program in music education; see pages 99–102.

NATURAL SCIENCES

This interdisciplinary program is administered in the office of the dean.

NATURAL SCIENCES, B.A. 59–61 credits

Required: Math 171, 172, 271; Phys. 251 or 258 and 268, Phys. 252 or 259 and 269; Chem. 151, 161, 152, 162; Biol. 153, 154; E.S. 252, 258. In addition to these 44–46 credits, the student must take 5 courses totaling not less than 15 credits; 3 of these courses must be in one science (excluding mathematics) and the other two in a different science or in mathematics. All five must be from approved electives.

PHILOSOPHY

PHILOSOPHY, B.A. See Department of Anthropology, Philosophy, Political Science, and Sociology.

DEPARTMENT OF PHYSICS

William H. Snedegar, Ph.D., Chairman

Professors: Exton, Keth, Snedegar; *Associate Professors:* Said, Shofestall, Slaugenhaupt; *Assistant Professor:* Blaine

PHYSICS, B.A. 61 credits

Required: Phy. 258, 268, 259, 269, 351, 352, 353, 354, 370, 461, and 11 credits from the following: Phy. 355, 356, 357, 453, 455, and 460. In addition to these 38 credits in physics, the following courses are required: Math. 171, 172, 271, 272, 350; Chem. 153, and 163.

PHYSICS, B.S. 70 credits

Required: Phy. 258, 268, 259, 269, 351, 352, 353, 354, 370, 461, and 11 credits from the following: Phy. 355, 356, 357, 453, 455, and 460. In addition to these 38 credits in physics, the following courses are required: Math. 171, 172, 271, 272, 350; Chem. 153, 163, and 9 other credits in the natural sciences and mathematics not including physics.

The Physics Department also offers a program in secondary education, see page 111.

POLITICAL SCIENCE

POLITICAL SCIENCE, B.A. See Department of Anthropology, Philosophy, Political Science, and Sociology.

PRE-LAW STUDIES

No particular course of study is required in preparation for law school. The pre-law student may major in any of the degree programs listed above but certain fields of study are recommended in any case; these are: English, political science, English and American constitutional history, philosophy, speech, accounting, corporate organization. In particular the following courses are recommended: P.S. 211, 354; Hist. 357; SCT 256, 311; Bus. Ad. 151. Interested students should contact one of the pre-law advisors, Dr. Bertsch or Dr. Haines, for additional information.

PRE-PROFESSIONAL STUDIES IN ENGINEERING

Since curricular requirements vary among engineering schools and fields of specialization, students planning to transfer to a school of engineering must give careful consideration to the requirements of the institutions to which they intend to apply and should plan to transfer no later than at the completion of their sophomore year. The following courses should be included in their programs at Clarion: Math. 171, 172, 271, 272, 350, 471; Chem. 153, 154, 163, 174; Phy. 258/268 and 259/269. Interested students should contact the chairman of the Physics Department.

PRE-PROFESSIONAL STUDIES IN MEDICINE, DENTISTRY, AND RELATED FIELDS

The Pre-Professional Committee has the responsibility to advise students seeking admission to schools of medicine, osteopathic medicine, dentistry, veterinary medicine, optometry, podiatry, and chiropractic. The College does not have a pre-professional program or major. Each student must choose to enroll in an academic area and will

have an advisor in an academic department. The committee functions to advise students only on the pre-professional aspects of their program. Recommended courses are: Biol. 153 and one other, excluding botany; Chem. 151, 161, 152, 162 or Chem. 153, 163, 154, 164; Chem. 251, 261, 252, 262; Phy. 251, 252; Math 171, 172; and Eng. 111. Requirements will vary with professional schools. Interested students should contact a member of the Pre-Professional Committee (Dr. Beck, Chairman) for additional information and guidance.

PRE-PROFESSIONAL STUDIES IN PHARMACY

It is possible for a student to transfer to a school of pharmacy after the completion of either the freshman or sophomore year. In either case, he should carefully check the requirements of the school he wishes to enter. If the student plans two years of pre-pharmacy study at Clarion, he should include the following courses in his program: Biol. 153, 154; Chem. 153, 154, 163, 164, 251, 252; Math. 171, 172; Phy. 251 and 252. Interested students should contact the pre-pharmacy advisor, Dr. Beck, for additional information and assistance.

PRE-THEOLOGICAL STUDIES

There is no fixed pattern of pre-seminary studies, but the American Association of Theological Schools recommends that students who are planning to enter a seminary should major in English, philosophy, or history. Interested students should contact the pre-theology advisor, Dr. Takei.

DEPARTMENT OF PSYCHOLOGY

Duane B. Soricelli, Ph.D., Chairman

Professors: Bernard, Combs, McCauley, Morrison, S. Reinhardt, Thornton; *Associate Professors:* Nachtwey, Semon, Wallace; *Assistant Professors:* Gackenbach, Soricelli

PSYCHOLOGY, B.A. 54 credits

Required: Psy. 211, 230, 251 and 21 credits in psychology electives chosen in consultation with a departmental advisor. In addition to these 30 credits in psychology, 24 credits representing at least two of the following fields are required: anthropology, economics, geography, political science, and sociology. NOTE: Psy. 322 may not be counted, and only two of 260, 321, and 331 may be counted, toward a major in psychology.

PSYCHOLOGY, B.S. 55 credits

Required: Psy. 211, 230, 251 and 21 credits in psychology electives chosen in consultation with a departmental advisor. In addition to these 30 credits in psychology, the following courses are required: Biol. 153, 201; Math 151 or equivalent; C.S. 101, 201; Phil. 111 or 112; and 6 credits from the following fields: biology, chemistry, computer science, earth science, mathematics, and physics. NOTE: Psy. 322 may not be counted, and only two of 260, 321, and 331 may be counted toward a major in psychology.

RUSSIAN

RUSSIAN, B.A. See Department of Modern Languages and Cultures.

SOCIAL SCIENCES

This interdisciplinary program is administered in the office of the dean.

SOCIAL SCIENCES, B.A. 54 credits

Required: 15 credits in one of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology, 9 credits in one other, and 6 credits in each of the remaining. At least 12 credit hours must represent junior and/or senior level work.

SPANISH

SPANISH, B.A. See Department of Modern Languages and Cultures.

DEPARTMENT OF SPEECH COMMUNICATION AND THEATER

Jane M. Elmes, M.A., Chairperson

Professors: Copeland, Hardwick, Hufford, Marston, A. Weiss, Wright (P.T.); *Associate Professors:* Clark, Marlin; *Instructors:* Elmes, McCauliff

SPEECH COMMUNICATION, B.A. 36 credits

Required: 36 credits selected from the following courses: SCT 113, 114, 115, 200, 225, 230, 251, 252, 256, 257, 258, 264, 300, 311, 312, 354, 358, 411, 412, 453, 454, 465, 490, and 491.

SPEECH COMMUNICATION AND THEATER, B.A. 36 credits

Required: 12 credits from among SCT 113, 114, 115, 200, 225, 230, 251, 252, 256, 257, 258, 264, 300, 311, 312, 354, 358, 411, 412, 453, 454, 465, 490, 491; 12 credits from among SCT 120, 201, 251, 253, 254, 255, 301, 350, 351, 352, 354, 359, 361, 362, 363, 410, 455, 458, 465, 468, 490, 491; and 12 credits among Speech Communication and/or Theater electives.

SPEECH COMMUNICATION AND THEATER, B.S. 57 credits

Required: 15 credits from among SCT 200, 210, 230, 251, 256, 300, 311, 312, 358, a theater elective, and 18 credits selected from other SCT electives; 6 credits selected from Math. 151 or 171, 221; CPSI 101, 102, 201, 301; or BCIS 223, 224; 6 additional credits from Math., CPSI, or BCIS courses just listed or from Psy. 230, 251, 455, or Phil. 111, 112; and 9 credits by advisement in Anthropology, Business, Communication, English, History, Philosophy, Political Science, Psychology, or Sociology.

THEATER, B.F.A. 45 credits

1) Concentration in Acting:
   Required: SCT 120, 201, 251, 253, 254, 301, 354, 359, 361, 465, and 15 credits from the following courses: SCT 255, 350, 351, 352, 362, 363, 468; Eng. 343, 345, 412, 413; and Mus. 172. Also required are four non-credit production labs, a project, and periodic workshops.
2) Concentration in Design/Technical Theater:
   Required: SCT 120, 253, 255, 352, 362, 363, 364; Art 236, 237, 239 and 15 credits from the following courses: SCT 254, 350, 351, 354, 359, 361, 410, 465, 468; Eng. 343, 345, 412, and 413. Also required are four non-credit production labs, a project, and periodic workshops.

TEACHER CERTIFICATION

Liberal Arts students can gain teacher certification in secondary education by taking required education courses as free electives in a B.A. or B.S. program. Details are available in the office of the Dean of Arts and Sciences or the Dean of Professional Studies.

SCHOOL OF BUSINESS ADMINISTRATION

Dr. Robert A. Fleck, Jr., Ph.D., Dean

Office: Still Hall

PHILOSOPHY AND OBJECTIVES

The School of Business Administration offers the curricula leading to the degree of Bachelor of Science in Business Administration, the Master of Business Administration and the Associate of Arts in Business Administration. The description below is concerned mainly with the undergraduate curriculum. For full information concerning the MBA program, refer to *The Graduate School* bulletin and the *Master of Business Administration* bulletin, which may be obtained from the Graduate School, Clarion State College, Clarion, PA 16214. The description of the Associate of Science program is found on pages 127–128.

The curriculum leading to the degree of Bachelor of Science in Business Administration is designed to assist students in arriving at a better understanding of the complex relationships inherent in the rapidly changing world of business, industry, and government; to provide educational experiences that will help students develop their potential for leadership and service; to help stimulate the growth of students as individuals and citizens; and to provide a qualitative environment in which educational enrichment can take place.

Supplemented by broad general requirements in the humanities, the social sciences, and the natural sciences, the business curriculum offers a well balanced program of courses in business administration which will not only help to prepare students for careers in business, industry, and government, but will also give preparatory training to students who plan to further their education through graduate study in business, economics, or law.

Although there is opportunity to develop depth in certain areas, i.e., accounting, computer and quantitative science, economics, finance, management, management/library science, marketing, office management, and real estate, emphasis in the program is not on deep specialization but rather on the development of analytical ability, intellectual toughness, imagination, the ability to communicate ideas, and adaptability so that technological change does not render the education obsolete.

ACADEMIC REQUIREMENTS

The scholarship requirements for business administration students are identical to those of other students in Clarion State College. The semester hour credits required for the degree of Bachelor of Science in Business Administration are summarized as follows:

General Education:	54 credits
Business Foundation subjects:	39 credits
Business and Economics Electives (Majors):	21 credits
Free Electives:	14 credits
Total required for graduation	128 credits

GENERAL EDUCATION REQUIREMENT

The general education program required for all students in the college is presented on pages 53-54; however, students majoring in Business Administration must include six credits in mathematics not including Math 111, 112, or 130, in fulfilling general education or free elective requirements. They must also add six credits in economics (Econ 211 and Econ 212). The general education requirements are summarized as follows:

Modes of Communication	12 credits
Natural Sciences & Mathematics	9 credits
Social Sciences	9 credits
Humanities	9 credits
Personal Development & Life Skills (includes Health and Physical Education)	9 credits
Additional General Education (Economics)	6 credits
Total	54 credits

BUSINESS FOUNDATION REQUIREMENT

Regardless of the major chosen, all students of Business Administration must take 39 hours of **Foundation Subjects.** These have been selected with the following primary objectives in mind:

1. To give students an insight into the major functions of organizations whether they be private business firms or local, state or federal government agencies.
2. To give students an understanding of the major problems within organizations as they pursue their goals.
3. To assist students in using the insights and methods of the humanities, social sciences, and natural sciences to analyze and illuminate these problems. Each of the Foundation Subjects either deals with an important aspect of organization or provides a tool

which can be used in attacking problems faced by individuals in organizations. The courses as a whole comprise a common body of knowledge in business and administration.

The following foundation courses are required of all business administration students:

ACCOUNTING AND QUANTITATIVE

BCIS	200:	Computer Info. Processing	3 credits
ACTG	151:	Financial Accounting	3 credits
ACTG	152:	Managerial Accounting	3 credits
Econ.	221:	Bus. & Econ. Statistics I	3 credits
Econ.	222:	Bus. & Econ. Statistics II	3 credits

ENVIRONMENTAL

MGMT	120:	Introduction to Business	3 credits
BSAD	240:	Legal Environment I	3 credits
Econ.	310:	Microeconomic Theory	3 credits

NOTE: Econ. 211 and 212 are prerequisites to Econ. 310.

FUNCTIONS

MGMT	320:	Principles of Management	3 credits
MKTG	360:	Principles of Marketing	3 credits
FIN	370:	Financial Management	3 credits
MGMT	425:	Production Management	3 credits

ADMINISTRATIVE PROCESS

BSAD	490:	Adm. Decision Making	3 credits
Total			39 credits

MAJOR REQUIREMENTS

In addition to the General Education and Business Foundation courses outlined above, all students studying business administration must build up a major consisting of at least eighteen hours in one of the following areas:

Accounting
Business Computer and Information Systems
Economics
Finance
Management

Management/Library Science
Marketing
Office Management
Real Estate

Twenty-one hours of Business and Economic electives are provided in the curriculum from which the student may select the courses needed to qualify for his/her major. The specific course requirements for each of these majors are outlined under the three Academic Departments on the following pages.

DEPARTMENT OF ACCOUNTING AND FINANCE

Woodrow W. Yeaney, Ph.D., Chairman

Office: Still Hall

Professors: Carter, Dupree, Hong; *Associate Professors:* Bagley, Choi, Pauksta, Pineno, E. Ross, Schaeffer, Townsend, Yeaney; *Assistant Professors:* Barnes, Bish, Campbell, W. Henry, W. Smith, S. Traynor; *Instructors:* Hall, Kocher, Otte; *Part-time Instructors:* Bender, Cox, Harkless, Holden, Kifer, Kooman, Lewis, Liber, Pope, Rosen, Smathers

ACCOUNTING (BSBA)

The following courses are required:

ACTG	250:	Intermediate Accounting	3 credits
ACTG	253:	Federal Taxes	3 credits
ACTG	350:	Accounting for Equities	3 credits
ACTG	351:	Cost Accounting	3 credits
ACTG	355:	Advanced Accounting	3 credits

One course from the following: 3 credits

ACTG	353:	Auditing
ACTG	451:	Accounting Problems
ACTG	453:	Problems in Federal Taxation

BUSINESS COMPUTER AND INFORMATION SYSTEMS (BSBA)

The following courses are required for both tracks:

BCIS	223:	Business Computer Programming — COBOL	3 credits
BCIS	224:	Data Structure and File Utilization	3 credits
CS	201:	Computer Science III	3 credits

a. Quantitative Science Track

Three courses from the following: 9 credits

CS	301:	Computer Science V — FORTRAN

ECON	423:	Statistical Tools for Quantitative Analysis
MGMT	420:	Operations Research I
MGMT	421:	Operations Research II

b. Information Systems Track

Three courses from the following: 9 credits

BCIS	211:	RPG II — Report Program Generator
BCIS	301:	Business Computer Systems Analysis
CS	102:	Computer Science II — BAL
CS	301:	Computer Science V — FORTRAN

FINANCE (BSBA)

The following courses are required:

FIN	373:	Fundamentals of Insurance	3 credits
FIN	376:	Security Markets	3 credits
FIN	471:	Financial Problems	3 credits
ECON	370:	Money and Banking	3 credits

Two courses from the following: 6 credits

FIN	374:	Property and Casualty Insurance
FIN	375:	Management of Financial Institutions
FIN	476:	Security Analysis
RE	371:	Real Estate Finance
ECON	371:	Public Finance

REAL ESTATE (BSBA)

The following courses are required:

RE	270:	Principles of Real Estate	3 credits
RE	371:	Real Estate Finance	3 credits
RE	372:	Brokerage of Real Estate	3 credits
RE	472:	Appraisal of Real Estate	3 credits

Two courses from the following: 6 credits

BSAD	241:	Legal Environment II
RE	242:	Real Estate Law
ECON	414:	Urban and Regional Economics

DEPARTMENT OF ADMINISTRATIVE SCIENCE

Frederick Clark, Chairman

Office: Still Hall

Professor: Reed; *Visiting Professor:* Maxwell; *Associate Professors:* Amaram, F. Clark, T. Davis, Grunenwald, Kim, K. Traynor; *Assistant Professors:* L. Felicetti, Fulmer, Kavoosi; *Instructor:* Ditz

MANAGEMENT (BSBA)

The following courses are required:

MGMT	321:	Organization Theory and Behavior	3 credits
MGMT	322:	Selection and Management of Business Information Systems	3 credits
MGMT	324:	Personnel Management	3 credits

Three courses from the following: 9 credits

MGMT	323:	Problems in Small Business
MKTG	361:	Marketing Management
MKTG	355:	Physical Distribution
MGMT	382:	Collective Bargaining
MGMT	420:	Operation Research I
MGMT	421:	Operation Research II
MGMT	426:	International Business

MANAGEMENT/LIBRARY SCIENCE (BSBA)

The following courses are required:

MGMT	321:	Organization Theory and Behavior	3 credits
MGMT	424:	Personnel Management	3 credits
L.S.	257:	Basic Information Sources & Services	3 credits
L.S.	260:	Development and Administration of Libraries	3 credits

Two of the following: 6 credits

BCIS	103:	COBOL
ACTG	253:	Federal Taxes
Econ.	351:	Industrial Relations

Required Library Science courses 6 credits
(would appear on check sheet under free electives)

L.S.	258:	Selection of Library Media
L.S.	357:	Organization of Media

Recommended Electives:

Comm.	240:	Locally Produced Media Materials
Comm.	315:	Photography
Comm.	440:	Media Production Planning
Comp. Sci.	201:	Computer Science III (FORTRAN)
L.S.	255:	Introduction to Media Librarianship

MARKETING (BSBA)

The following courses are required:

MKTG	461:	Market Research	3 credits

MKTG	465:	Marketing Problems	3 credits

Two of the following: 6 credits

MKTG	361:	Marketing Management
MKTG	363:	Advertising Management
MKTG	468:	Consumer Behavior

Two of the following: 6 credits

MKTG	362:	Retailing Management
MKTG	364:	Salesmanship
MKTG	365:	Industrial Marketing
MKTG	366:	Physical Distribution
MKTG	460:	Sales Management
MKTG	361, 363, 468, listed above	

OFFICE MANAGEMENT (BSBA)

The first two years of this major are offered only on the Venango Campus and lead to the Associate of Arts degree. Students will, at their option, be able to transfer to Main Campus, Clarion, with no loss of credit.

Required courses first two years:

General Education				26 credits
General Business courses				18 credits
Skills area:				18 credits
OFMT	131:	College Typing	2 credits	
OFMT	132:	Production Typing	3 credits	
OFMT	135:	College Shorthand	2 credits	
OFMT	136:	Production Shorthand	3 credits	
OFMT	230:	Secretarial Procedures Workshop	4 credits	
OFMT	231:	Office Practicum	4 credits	
Electives				2 credits
Total for Certificate				64 credits

Students moving into the bachelor's degree program will complete their work on the Clarion Campus. They will be held responsible for all the common requirements for the Bachelor of Science in Business Administration degree and the following specific courses in Administrative Science:

OFMT	221:	Office Management
MGMT	320:	Principles of Management
MGMT	321:	Organization Theory and Behavior
MGMT	424:	Personnel Management

DEPARTMENT OF ECONOMICS

Arthur A. Wichmann, Ph.D., Chairman

Office: Still Hall

Professors: W. Ross, Singh, Wichmann; *Associate Professors:* Mohan, T. Vernon; *Assistant Professors:* Dennis, Bowersox

Students may take a major in Economics either in the School of Business or the School of Arts and Sciences.

ECONOMICS (BSBA)

The following courses are required:

Econ.	311:	Macroeconomic Theory	3 credits
Econ.	370:	Money and Banking	3 credits
Econ.	490:	History of Economic Thought	3 credits

Three courses from the following: 9 credits
The student may take any Economics courses listed in the catalog (pp. 159-161) to meet this requirement. Also, Hist. 355: Economic History of the U.S., may be used as a course in the Economics major.

TYPICAL PROGRAM FOR BUSINESS ADMINISTRATION STUDENTS

1ST SEMESTER				2ND SEMESTER			
Eng.	111	Fresh. Comp.	3	ACTG	152	Manag. Acct.	3
ACTG	151	Fin. Acct.	3	BSAD	240	Legal Envir. I	3
		Math*	3			Math*	3
MGMT	120	Intro to Bus.	3			Humanities	3
		Nat. Science	3			Gen. Ed. Elec.	3
HPE	111	Health Ed.	2			Phys. Ed.	1
			17				16

*Note: Students in Business need six credits in Math beyond Math 111, 112, or 130.

3RD SEMESTER

BCIS	200	Comp. Info. Proc.	3
Econ.	211	Prin. I	3
Econ.	221	Econ. & Bus. Stat. I	3
		Humanities	3
		Gen. Ed. Elec.	3
		Phys. Ed	1
			16

Note: Accounting majors will substitute ACTG 200 Intermediate Accounting for one of the above courses.

4TH SEMESTER

Econ.	212	Principles II	3
Econ.	222	Econ. & Bus. Stat. II	3
		Humanities	3
		Soc Sci	3
		Gen Ed Elec	3
			15

Note. Accounting majors will substitute an advanced accounting course for one of the above.

5TH SEMESTER

MKTG	360	Prin. of Mkt.	3
FIN	370	Fin. Mgmt.	3
Econ.	310	Micro	3
MGMT	320	Prin. of Mgmt.	3
		Soc. Sci.	3
			15

6TH SEMESTER

		Bus. Major	9
		Gen. Ed. Elec	6
			15

7TH SEMESTER

		Bus. Major	9
MGMT	425	Prod. Mgmt.	3
		Elec.	6
			18

8TH SEMESTER

		Bus. Major	6
BSAD	490	Adm. Dec. Mak.	3
		Elec.	6
			15

SCHOOL OF COMMUNICATION

James H. Cole, Ed.D., Dean

Office: Davis Hall
Telephone Extension: 2328

Professors: Cole, Metcalf; *Associate Professors:* Baker, Felicetti, Fueg, Larson, McCavitt, Pfaff; *Assistant Professor:* Marini

The School of Communication offers a broadly based program leading to the Bachelor of Science degree in Communication. It is essentially interdisciplinary in nature, requiring courses from English, Speech, Communication, Business, and the School of Communication.

The program is designed to develop the student's ability to write and speak effectively, and to use other media — radio, television, film, photography, and the print medium — for specific purposes. Required courses in business, computer science, and logic provide a basic understanding of organizational behavior and skills necessary to function effectively in a variety of organizations. Electives may be selected from any academic area of the college. If desired, they may be concentrated to provide additional training for specific career goals.

Graduates will be prepared to assume entry level positions in internal communication (assisting communication between sectors of people within an organization), external communication (public relations and advertising), and in training programs (management, employee, and customer). Such positions may be in business, industry, governmental agencies, or nonprofit organizations.

Students majoring in Communication must complete 48 credits in General Education, which includes Natural Sciences and Mathematics, Social Sciences, Humanities, and Personal Development and Life Skills. In addition, four semesters of co-curricular activities are required in at least one broadcast-oriented organization and one print-oriented organization. Broadcast organizations are Student Experimental Television, WCCB Closed-Circuit AM Radio Station, WCUC-FM, Non-Commercial FM Radio Station. Print organizations are the Clarion Call campus newspaper and Sequelle Yearbook. Students who wish to fulfill this requirement by working for the local radio station or the local paper may do so with agreement of both advisor and employer. Other options may be approved by the Academic Affairs Committee of the School of Communication. Physical facilities for the program include a full color television studio, FM radio station, motion picture and photographic laboratories, darkrooms, graphics area, and multi-image experimental classroom. However, the student is expected to own or have access to a

35mm camera, with variable focus and f stop, and a built-in or separate light meter. If purchase is considered, it is suggested that the student contact the School of Communication for guidance in selecting an appropriate camera.

COMMUNICATION, B.S. 67 credits

Required courses: English 200, 201, 251; SCT 113, 115, or 264, 300; MGMT 120, 320; ACTG 151; Econ. 211; Comp. 101; Phil. 111; Comm. 101, 102, 201, 202, 203, 301, 302, 401, and 402.

B.S. DEGREE IN COMPUTER SCIENCE 48 credits

Adjunct faculty from Mathematics, Business Computer and Information Systems, and the Computer Center.

The principal objectives of the computer science degree program are:

1. To enable students with a major in computer science to develop the practical, conceptual, and theoretical knowledge and skills required of an operational computer scientist.
2. To enable students from other disciplines to program and utilize the computer as a tool in their respective disciplines.
3. To enable students from other disciplines to communicate with computer specialists, specify uses of the computer, utilize computer facilities, and interpret the results of computer data.

The program has been carefully designed to prepare graduates to assume positions in industry, government, and education, or to continue with advanced study. Students entering the computer science major should have a strong high school background in mathematics including Elementary and Intermediate Algebra, Plane Geometry and Trigonometry. Additional courses in mathematics are desirable.

The computer science major includes a general education component requiring 48 credits in the humanities, social sciences, communication and natural sciences. Courses within the major represent a balance between the theoretical and applied, and are logically sequenced to enable the student to synthesize knowledge and to apply skills at appropriate levels.

As students progress through the computer science curriculum, they are made aware of the major differences in operating system architecture through real life experiences with hardware which is constantly available for their use.

Clarion State College is unique among the 14 state institutions in that it has two major computing systems, an IBM 360/40 and a Sperry Univac 90/60. The 360/40 can be used in two different modes — as an individual processor or as a remote job entry terminal to the Sperry Univac system. This compatibility provides students with an opportunity for hands-on experiences in operating a major computer system in whichever mode they elect. An additional benefit from using two diverse systems is that students become aware of two completely different operating systems and types of hardware. This provides a strong background of knowledge in the two types of major systems which they are likely to encounter in their future work.

Both of these systems are equipped with the major programming language operating systems while the Sperry Univac also has many special software packages available on a machine of this size.

Required Courses:

Math 171, Math 172, Math 271, Math/C.S. 240, Math 370, C.S. 151, C.S. 152, C.S. 253, C.S. 254, C.S. 355, C.S. 356, C.S. 357, C.S. 460.

SUGGESTED SEQUENCE FOR EIGHT SEMESTERS

FIRST SEMESTER

*C.S.	151:	Introduction to Fortran	3
*Math	171:	Precalculus	4
Gen. Ed. and Electives			7–10
			14–17

SECOND SEMESTER

*C.S.	152:	Advan. Fortran Prog.	3
*Math	172:	Calculus with Anal. Geometry	4
Gen. Ed. and Electives			7–10
			14–17

THIRD SEMESTER

*C.S.	253:	Computer Org. & Assembly Lang.	3
*Math	271:	Calculus with Analytic Geometry II	4
Gen. Ed. and Electives			7–10
			14–17

FOURTH SEMESTER

*C.S.	254:	Information Structures	3
*Math/C.S.	240:	Discrete Structures	3
Gen. Ed. and Electives			9–12
			15–18

FIFTH SEMESTER

*C.S.	355:	Operating Systems I	3
*Math	370:	Introduction to Linear Algebra	3
Gen. Ed. and Electives			9–12
			15–18

SIXTH SEMESTER

*C.S.	356:	Data Structures	3
*C.S.	357:	Structure of Program Language	3
Gen. Ed. and Electives			9–12
			15–18

SEVENTH SEMESTER

*C.S.	460:	Intro to Theory of Computing	3
*C.S. Elective			3
Gen. Ed. and Electives			9–12
			15–18

EIGHTH SEMESTER

*C.S. Elective	3
Gen. Ed. and Electives	12–15
	15–18

*Required courses for Computer Science majors

SCHOOL OF CONTINUING EDUCATION

Frank H. Sessions, Ph.D., Dean

Office: Carrier Administration Building, Room 216
Telephone Extension: 2227

Clarion State College has made a commitment to the challenge of lifelong learning by the establishment of a School of Continuing Education.

The major thrust of continuing education is to organize and make available to the community the vast resource of instructional talent that resides in the area. Educational programming of all types, presented in almost any format, and developed to meet the needs of a wide variety of audiences, is possible through continuing education.

Generally continuing education activities will fall into one of three program types, non-credit courses, open to the general public without regard to educational background; credit courses offered to meet professional needs; and conferences, a concentrated experience developed for a specific group.

Non-credit courses, as the name implies, do not carry academic credit, do not require admission to the college, do not have examinations or grades. They are mostly conducted on a basic level, thus allowing everyone the opportunity for personal growth. Reasons for pursuing non-credit courses could be for gaining job skills, personal development, intellectual enrichment or just plain fun.

The fee for each non-credit course is determined largely by the costs involved in presenting the course. This requires that a minimum enrollment be achieved in order for a course to proceed.

Records of each student's participation in non-credit classes will be maintained. The Continuing Education unit, C.E.U., will be awarded upon successful completion of a course. One C.E.U. represents 10 hours of instruction.

Continuing education programs providing academic credit are generally offered to meet an in-service or professional development educational need of a specific professional group.

Conference activity at Clarion State College will be aimed at bringing to the campus various occupational, business, fraternal, labor, and professional groups for concentrated day-long-week-long educational activities. The extent to which Clarion faculty is involved in the instructional component will vary with each conference.

Another service to be provided by the School of Continuing Education is that of aiding persons wishing to be admitted to a credit course offered

within the regular program of the college. Persons wishing to pursue a course without regard to credit or degrees may call upon continuing education for help in making proper arrangements.

As the educational needs of the area become more apparent through observation, suggestion, or assessment, the School of Continuing Education, in cooperation with the various academic units across the campus, will develop and offer programs intended to meet those needs. A class can take place at any time, at any place, and deal with almost any subject.

SCHOOL OF LIBRARY SCIENCE

Elizabeth A. Rupert, Ph.D., Dean

Office: Carlson Library Building, Room 166
Telephone Extension: 2271

Professors: Gamaluddin, Rupert, Vavrek; *Associate Professors:* Economous, Head, Jetter; *Assistant Professors:* Luskay, Payne

On December 3, 1937, the State Council of Education approved a curriculum for the education of school librarians at Clarion State College.

Library science courses are also offered as electives for Liberal Arts and Business Administration students (see program descriptions for those degree programs), and for elementary majors electing to take their 18 hour concentration in library science.

Besides meeting the state requirements for school librarianship, the library science program at Clarion State College qualifies students for service in public and special libraries.

Candidates for the B.S. degree in Education who specialize in library science are required to complete 30 semester hours of library science/communication courses. Upon receipt of the degree, the graduate is recommended for certification as a librarian in all grades of the Pennsylvania public schools.

The undergraduate student begins library science courses in the first semester of the freshman year with the course, Introduction to Media Librarianship. A "C" average must be maintained in library science/communication courses and a cumulative "C" average in all courses must be earned to graduate. (Course work more than 6 years old will not be acceptable in meeting certification requirements.) A student planning eventually to work for a master's degree in library science may need a reading knowledge of a modern foreign language and may, therefore, wish to take one of these languages as an undergraduate.

Before being assigned to student teaching, all students specializing in library science must have completed the thirty hours required for the specialization.

The student will find information on scholarship requirements for Teacher Education students on pages 35-38.

A total of 128 semester hours must be completed for the B.S. in Education.

THE CURRICULUM IN LIBRARY SCIENCE EDUCATION

(Sequence of courses subject to change for administrative reasons.)

1ST SEMESTER

L.S.	255	Intro to Media Librarianship	3
L.S.	432	Colloquium	0

2nd SEMESTER

L.S.	257	Basic Information Sources & Serv.	3
Comm.	240	Locally Produced Materials	3
L.S.	432	Colloquium	0

3RD SEMESTER

L.S.	258	Selection of Library Media	3
L.S.	357	Organization of Media	3
L.S.	432	Colloquium	0

4TH SEMESTER

*L.S.	358	Media for Children	3
L.S.	432	Colloquium	0

5TH SEMESTER

*L.S.	356	Media for Adolescents	3
Comm.	440	Media Production Planning	3
L.S.	432	Colloquium	0

6TH SEMESTER

L.S.	360	Admin. of School Media Centers	3
L.S.	459	Media, Methods and the Curriculum	3
L.S.	432	Colloquium	0

7TH SEMESTER

Ed.	422	Prof. Prac. & School Law	2
Ed.	423	Lib. Practice	30-12

8TH SEMESTER

L.S.	432	Colloquium	0

THE CURRICULUM IN LIBRARY SCIENCE EDUCATION CONCENTRATION FOR ELEMENTARY MAJORS

(Not a certification Program)

(Sequence of courses subject to change for administrative reasons.)

1ST SEMESTER

Comm.	240	Locally Produced Materials (in lieu of Ed. 329 Audio-Visual Communication 2)	3
L.S.	258	Selection of Library Media	3
L.S.	432	Colloquium	0

2ND SEMESTER

L.S.	257	Basic Information Sources & Serv.	3
L.S.	432	Colloquium	0

3RD SEMESTER

*L.S.	356	Media for Adolescents	3
L.S.	357	Organ. of Media	3
L.S.	432	Colloquium	0

4TH SEMESTER

L.S.	360	Admin. of Sch. Media Centers	3
L.S.	459	Media, Methods & Curriculum	3
L.S.	432	Colloquium	0

*Prerequisite: L.S. 258

5TH SEMESTER			6TH SEMESTER		
L.S.	432	Colloquium 0	L.S.	432	Colloquium 0
7TH SEMESTER			**8TH SEMESTER**		
El. Ed.	422	Prof. Prac. & School Law 2	L.S.	432	Colloquium 0
El. Ed.	424	Student Teaching . 30-12			

NOTE: Elementary majors wishing to be certified as school librarians will add to the above sequence as follows:

L.S.	255	Introduction to Media Librarianship	3-3 1st sem.
Comm.	440	Media Production Planning	3-3 3rd sem.
L.S.	358	Media for Children	3-3 4th sem.
El. Ed.	423	Library Practice	15-6 7th sem.
El. Ed.	424	Student Teaching	15-6 7th sem.

LIBRARY SCIENCE/COMMUNICATION
30 Semester Hours

REQUIRED:

			c.h.	s.h.
L.S.	255	Introduction to Media Librarianship	3	3
L.S.	257	Basic Information Sources and Services	3	3
L.S.	258	Selection of Library Media	3	3
L.S.	356	Media for Adolescents	3	3
L.S.	357	Organization of Media	3	3
L.S.	358	Media for Children	3	3
L.S.	360	Administration of School Media Centers	3	3
L.S.	459	Media, Methods, and the Curriculum	3	3
L.S.	432	Colloquium	0	0
Comm.	240	Locally Produced Materials	3	3
Comm.	440	Media Production Planning	3	3

ELECTIVE:

L.S.	123	Introduction to Locating & Organizing Information	3	3
L.S.	455	Special Topics in Librarianship	3	3
L.S.	457	Independent Study/Seminar	1	3
L.S.	260	Development and Administration of Libraries	3	3

The School of Library Science offers a graduate program in Library Science accredited by the American Library Association, preparing personnel for first-level professional positions in public, school, academic, and special libraries. It is recommended that students planning to enter the master's program pursue a broad liberal arts education at the undergraduate level. It would be well to seek counsel from advisors and carefully plan the undergraduate program in order to meet the requirements for entering the Master of Science in Library Science program. For further information regarding the program refer to the bulletin of the School of Library Science.

SCHOOL OF PROFESSIONAL STUDIES

Robert H. Baldwin, Ph.D., Dean

Office: Becker Research Learning Center
Telephone Extension: 2146

The School of Professional Studies offers programs to prepare professional educators and other human services personnel. Eight specialized curricula are offered in professional education: early childhood education, elementary education, library science, music education, school nursing, secondary education, special education, and speech pathology and audiology. Additional certification programs are available in: athletic coach, safety education/driver training, and environmental education. Each teacher education curriculum is designed to meet the graduation requirements of the college, the certification requirements of the state, and the accreditation standards of various professional groups. In the human services field, two programs are offered: habilitative services and associate degree nursing. All programs involve classroom, laboratory, and practicum experiences.

TEACHER EDUCATION

Role Statement

In its teacher preparation programs Clarion State College is committed to educating its students to play six important roles in the educational process.

First, the teacher serves as a model of the academic culture. In this role the teacher is expected to be competent in standard English in both its written and oral forms; to be conversant with the major domains of knowledge as they are reflected in the humanities, the social sciences, and the natural sciences and mathematics; to be committed to scholarship and intelligence.

Second, the teacher serves as a resource for a school and community in a particular area of expertise. In this role the teacher is expected to display comprehensive and extensive knowledge in the area of specialization; to demonstrate ability to elaborate upon content, simplify material, and integrate knowledge; and to be sufficiently grounded in the basic concepts, principles, and methods of operation associated with that specialization to be able to pursue advanced study.

Third, the teacher serves as a facilitator of learning for his or her students. In this role the teacher is expected to establish both short and long-range goals for student teaching, to provide sound and effective

learning experiences, to utilize a variety of assessment techniques, to establish a positive learning environment, to utilize available time and materials effectively, and to apply learning theory to classroom practices.

Fourth, the teacher serves as a facilitator of democratic attitudes. In this role the teacher is expected to respect students and individuals and to be accepting of them in their differences, to help them develop wholesome self-images, to support their creativity and originality, and to exhibit an awareness of and appreciation for the contributions that men and women from various racial and ethnic backgrounds have made to the human condition.

Fifth, the teacher serves as a professional educator. In this role the teacher is expected to serve as a responsible member of a school's professional staff, playing leadership and supportive roles as appropriate; to demonstrate high ethical standards in working with students, parents, and colleagues; to participate in the shaping of educational policies for the school and the teaching profession; and to be committed to continuing personal and professional development.

Sixth, the teacher serves as his or her own role definer. In this role the teacher is expected to identify, develop, and articulate his or her own truths about education, teaching and learning, schools, and the role that a teacher should play in the educational community.

Certification

Students who complete one of the teacher education curricula of Clarion State College and who are awarded a baccalaureate degree are qualified for the Pennsylvania Instructional I Certificate, valid for three years of teaching. Applications for the certificate must be made by the student and the certificate issued before graduates may teach in the public schools of Pennsylvania. Since recommendation for certification is based upon program requirements in effect when the application is filed, students are urged to do this during the semester in which they plan to graduate. Applications are available in the Office of Professional Education Services.

To obtain the Instructional II or permanent certificate applicants must have three years of satisfactory teaching experience on the Instructional I certificate in approved schools of this Commonwealth and the satisfactory completion of twenty-four (24) semester hours of post-baccalaureate or approved in-service education.

Any certificate may be extended to include other teaching fields by completing an approved program in that area. Students not enrolled in a program leading to a Bachelor of Science in Education degree can make application for teacher certification by obtaining admission to and completing one of the college's approved programs in teacher education. For further information, consult the Dean's office, School of Professional Studies.

General Requirements

GENERAL EDUCATION

To qualify for graduation, each student must satisfy the general education requirement of the college, which specifies the completion of 48 hours of credit in accord with the distribution presented on pages 53-54.

PROFESSIONAL EDUCATION

Candidates for certification in a teaching field must complete the professional and special requirements for that field, as indicated below.

Early Childhood Education, see pages 94-97.
Elementary Education, see pages 91-94.
Library Science Education, see pages 84-85.
Music Education, see pages 99-102.
School Nursing, see page 103.
Secondary Education, see pages 103-115.
Special Education, see pages 103-120.
Speech Pathology and Audiology, see pages 119-120.

STUDENT TEACHING

Student teaching provides the culminating field experience for teacher education students at Clarion. Through it the students have opportunities to implement what has been learned about the teaching-learning process and to advance the development of a personal and professional philosophy in relation to the realities of classroom performance. A full-time full-semester commitment is required so that students will be adequately prepared to meet the reality of intellectual, motivational, and behavioral differences which exist in almost every classroom. The semester-long program also gives students an opportunity to demonstrate both acquisition and maintenance of behaviors that are essential to good teaching.

Student teachers are assigned upon completion of certain requirements. The minimum qualifications for a student teaching assignment are:

1. Completion of at least eighty (80) semester hours of college credit.
2. An average of 2.00 or more quality points for all college studies.
3. An average of 2.00 or more quality points for all college courses applicable to each field of certification.
4. Satisfactory completion of the general education skills requirement in English.
5. No more than five (5) semester hours of failure (E) reported, or recorded as not removed, on the student's record in the Registrar's office, in courses applicable to fields of certification or to required courses in general and professional education.
6. "Neither mentally or physically disqualified, by reason of tubercu-

losis or any other communicable disease or by reason of mental disorder from successful performance of the duties of a teacher." (School Code 1209)

7. Satisfactory completion of a course or courses in teaching methods applicable to at least one of the student's teaching field(s) (other than driver education).
8. Not on academic or social probation.
9. Recommendation for eligibility as determined by the advisor.

Student teachers will be assigned where they can be accommodated, without special consideration of their place of permanent residence.

Student teachers are encouraged to reside throughout the semester in the community in which their student teaching center is located.

Student teachers will be expected to be at their assigned centers whenever the college is in session.

The final grade in student teaching will be recommended by the cooperating teacher in consultation with the College supervisor and will be finally approved and reported by the College supervisor.

Student teachers are assigned to centers where the most beneficial laboratory experience may be assured in keeping with the student's field of certification. The school districts, administrative units and other organizations which are now a part of the program are listed below. The list should be considered as representative and advisory. It is not an agreement for assignment.

STUDENT TEACHING CENTERS

Allegheny-Clarion Valley School District, Foxburg, Pennsylvania 16036
Apollo-Ridge School District Spring Church, Pennsylvania 15686
Arin Intermediate Unit, Route 422, Shelocta, Pennsylvania 15774
Armstrong School District, Ford City, Pennsylvania 16226
Dr. Gertrude A. Barber Center, Inc., Erie, Pennsylvania 16507
Beaver Valley Intermediate Unit, Monaca, Pennsylvania 15061
Becker School, Clarion, Pennsylvania 16214
Big Beaver Falls Area School District, Beaver Falls, Pennsylvania 15010
Blackhawk School District, Beaver Falls, Pennsylvania 15010
Bradford Area School District, Bradford, Pennsylvania 16701
Brockway Area School District, Brockway, Pennsylvania 15824
Brookville Area School District, Brookville, Pennsylvania 15825
Brookville Nursery School, Brookville, Pennsylvania 15825
Butler Montessori School, Butler, Pennsylvania 16001
Carlynton School District, Carnegie, Pennsylvania 15106
Central Intermediate Unit, R. D. 1, Philipsburg, Pennsylvania 16866
Children's Square, Punxsutawney, Pennsylvania 15767
Clarion Area School District, Clarion, Pennsylvania 16214
Clarion Limestone Area School District, R. D. 1, Strattanville, Pennsylvania 16258
Clarion Manor Intermediate Unit, Route 322 East, Shippenville, Pennsylvania 16254
Clearfield Area School District, Clearfield, Pennsylvania 16830
Cranberry Area School District, Seneca, Pennsylvania 16346
Crawford Central School District, Meadville, Pennsylvania 16335
Deer Lakes School District, R. D. 1, Cheswick, Pennsylvania 15024
DuBois Area School District, DuBois, Pennsylvania 15801

Easter Seal Society of Armstrong County, Ford City, Pennsylvania 16226
Easter Seal Society of Beaver County, Beaver, Pennsylvania 15009
Easter Seal Society for Crippled Children and Adults of Butler County, Inc., Butler, Pennsylvania 16001
Easter Seal Society of Mahoning County, Youngstown, Ohio 44502
Family Life Center, DuBois, Pennsylvania 15801
Farrell Area School District, Farrell, Pennsylvania 16121
Forest Area School District, Tionesta, Pennsylvania 16353
Fox Chapel Area School District, Pittsburgh, Pennsylvania 15238
Franklin Area School District, Franklin, Pennsylvania 16323
Greater Latrobe School District, Latrobe, Pennsylvania 15650
Hampton Township School District, Allison Park, Pennsylvania 15101
Harmarville Rehabilitation Center, Inc., Pittsburgh, Pennsylvania 15238
Hempfield Area School District, R. D. 6, Greensburg, Pennsylvania 15601
Hermitage School District, Hermitage, Pennsylvania 16146
Highlands School District, Natrona Heights, Pennsylvania 15065
Immaculate Conception School, Clarion, Pennsylvania 16214
Johnsonburg Area School District, Johnsonburg, Pennsylvania 15845
Kane Area School District, Kane, Pennsylvania 16735
Karns City Area School District, Karns City, Pennsylvania 16041
Keystone School District, Knox, Pennsylvania 16232
Kiski Area School District, Vandergrift, Pennsylvania 15690
Lawrence County Society for Crippled Children and Adults, Inc., New Castle, Pennsylvania 16101
Leechburg Area School District, Leechburg, Pennsylvania 15656
Lenape Area Vocational-Technical School, Ford City, Pennsylvania 16226
Marion Center Area School District, Marion Center, Pennsylvania 15759
Mars Area School District, Mars, Pennsylvania 16046
McKeever Environmental Learning Center, Sandy Lake, Pennsylvania 16145
Midwestern Intermediate Unit, Grove City, Pennsylvania 16127
Montessori Centre, Glenshaw, Pennsylvania 15116
New Castle Area School District, New Castle, Pennsylvania 16101
New Kensington-Arnold School District, New Kensington, Pennsylvania 15068
North Allegheny School District, Pittsburgh, Pennsylvania 15237
North Clarion County School District, Leeper, Pennsylvania 16233
Northgate School District, Bellevue, Pittsburgh, Pennsylvania 15202
North Hills School District, Pittsburgh, Pennsylvania 15229
Northwest Tri-County Intermediate Unit, Edinboro, Pennsylvania 16412
Oil City Area School District, Oil City, Pennsylvania 16301
Penn Hills School District, Pittsburgh, Pennsylvania 15235
Penn-Trafford School District, Harrison City, Pennsylvania 15636
Pittsburgh Public Schools, Pittsburgh, Pennsylvania 15213
Polk Center, Polk, Pennsylvania 16342
Punxsutawney Area School District, Punxsutawney, Pennsylvania 15767
Redbank Valley School District, New Bethlehem, Pennsylvania 16242
Reynolds School District, Greenville, Pennsylvania 16125
Ridgway Area School District, Ridgway, Pennsylvania 15853
Riverview School District, Oakmont, Pennsylvania 15139
Rochester Area School District, Rochester, Pennsylvania 15074
Sharon City School District, Sharon, Pennsylvania 16146
South Butler County School District, Saxonburg, Pennsylvania 16056
Southwest Butler County School District, R. D. 2, Harmony, Pennsylvania 16037
St. Elizabeth Hospital, Youngstown, Ohio 44505
St. Marys Area School District, St Marys, Pennsylvania 15857
St. Vincent Hospital, Erie, Pennsylvania 16512
Titusville Area School District, Titusville, Pennsylvania 16354

Union School District, Rimersburg, Pennsylvania 16248
Valley Grove School District, Franklin, Pennsylvania 16323
Warren County School District, Warren, Pennsylvania 16365

DEPARTMENT OF EDUCATION

Earl R. Siler, Ed.D., Chairman

Professors: Moorhouse, Siler, P. Smith, Uzmack, Zaeske; *Associate Professors:* Battista, Chalfont, Kenemuth, Klindienst, Mosser, Palaggo, J. Smith, Willoughby-Herb, Yoho

The Education Department offers baccalaureate programs leading to certification in Elementary Education (K-6) and Early Childhood Education (N-3). The Department is also responsible for graduate programs in Elementary Education and Reading Education.

ELEMENTARY EDUCATION

Through a combination of theoretical studies and field experiences with children, the program in elementary education seeks to provide the prospective teachers with basic content knowledge and professional and human relations skills. Students have, through a substantial number of elective credits, an opportunity to pursue cognate skills in a concentration or other complementary professional skills.

Program Requirements

GENERAL EDUCATION

The elementary major should fulfill the general education distribution requirements noted on pages 53-54.

PROFESSIONAL COMPETENCY

The elementary major is expected to show competency in the following content areas through course work taken as free electives and in satisfying the general education requirement or through competency examinations: advanced English composition, art, biology, chemistry, civilization, English language, earth science, geography, health and physical education elementary activities, music, physics, political science, psychology, speech, and U.S. history.

PROFESSIONAL EDUCATION

The following courses are required of all elementary majors:

			c.h.	s.h.
Art	222	Teaching Art in Elementary Grades	3	3
Ed	329	Audio-Visual Education	3	2

El. Ed.	110	Introduction to Elementary Education	3	3
El. Ed.	326	Reading Problems in the Elementary School	3	3
Music	132	Basic Music Methods for the Elementary Classroom Teacher	3	3
Psy.	322	Educational Psychology	3	3
El. Ed.	422	Professional Practicum and School Law	2	2
El. Ed.	424	Student Teaching	30	12

NOTE: Students who elect a concentration in Library Science are required to take El. Ed. 423; Library Practice — 6 semester hours and El. Ed. 424; Elementary Student Teaching — 6 semester hours.

PROFESSIONAL CORE

The professional core should be taken in the 5th or 6th semester; student teaching in the semester following:

			c.h.	s.h.
El. Ed.	323	Teaching of Reading	3	3
El. Ed.	324	Teaching of Elementary School Mathematics	3	3
El. Ed.	325	Modern Curriculum and Methods	5	5
El. Ed.	331	Children's Literature	3	3
Sci. Ed.	322	Teaching Science in Elementary School	3	3

TYPICAL PROGRAM FOR ELEMENTARY MAJORS

1ST SEMESTER

Eng.	111	Eng. Composition	3
Math.	111	Basic Mathematics	3
		General Education	9
		H.P.E. Activity	1
			16

2ND SEMESTER

		Speech	3
El. Ed.	110	Intro. to El. Ed.	3
HPE	111	Health	2
		General Education	9
			17

3RD SEMESTER

Psy.	211	General Psy.	3
HPE	223	Physical Education	1
		General Education	12
			16

4TH SEMESTER

		General Education	12
		Academic Elective	6
			18

5TH SEMESTER

Psych.	322	Educ. Psych.	3
Ed.	329	Audio-Visual	2
Art	222	Teaching Art	3
		Academic Elective	8
			16

6TH SEMESTER

El. Ed.	323	Teaching Reading	3
El. Ed.	324	Teaching Math	3
El. Ed.	325	Mod. Curr.	5
El. Ed.	331	Children's Lit.	3
Sci. Ed.	322	Teaching Science	3
			17

7TH SEMESTER

El. Ed.	424	Student Teaching	12
El. Ed.	422	Prof. Prac. & Sch. Law	2
			14

8TH SEMESTER

El. Ed.	326	Reading Prob.	3
		General Education	6
		Academic Elective	7
			16

Academic Concentrations for Elementary Majors

ART

Required: Art 222, 231.
Electives: (12 sem. hrs.) Art 112, 113, 232, 233, 234, 235, 236, 237, 240, 300, 301, 311, 313, 315, 316.

BIOLOGY

Required: Biol. 153, 154, or 111.
Electives: (12 to 15 hrs.) Biol. 202, 351, 353, 354, 356, 357.

CHEMISTRY/PHYSICS

Required: Chem. 153, and 163 (lab), 154, and 164, 254 and 264, Physics 251, 252. Ph. Sci. 111, and Ph. Sci. 112 should not be elected by students selecting this concentration.

EARLY CHILDHOOD EDUCATION

Required: E. Ch. 231, 321, 332.
Electives: (9 hrs.) Art 231, 234, 235; G.S. 330; HPE 224, 324, 414; Music 231, 232, 233; Psy. 225, 260, 331; SCT 255; Soc. 351, 352, 362.

ELEMENTARY SCHOOL LIBRARIANSHIP

Required: LS. 256, 257, 258, 357, 358, 359.

ENGLISH

Required: Eng. 111 or 200, 252
Electives: (12 sem. hrs.) Eng. 151, 170, 200, 209, 210, 221, 222, 253, 320, 322, 353, 385, 457 458.

EXCEPTIONAL CHILDREN AND YOUTH

Required: Sp. Ed. 210, 220; SPA 455, 460.
Electives: (6 hrs.) By advisement.

FOREIGN LANGUAGE

French, German, Russian, or Spanish:
Elementary I and II (151-152); Intermediate I and II (251-252);
Civilization I and II (255-256)
Students who have been exempted from 151-152 by virtue of previous study in high school will be required to have 6 hours of electives in their foreign language concentration.

GEOGRAPHY

Required: E.S. 111; 254 or 257.
Electives: (12 hrs.) Two courses in topical Geography and two courses in regional Geography.
Suggested topical courses: Geog. 251, 254, 255, 259, 352, 354, 454.
Suggested regional courses: Geog. 256, 257, 355, 356, 357, 452, 453.

GEOLOGY — GEOGRAPHY BROAD FIELD

Required: E.S. 111, 253, 258, 260, 351, 352, 353; Geog. 354.

HEALTH AND PHYSICAL EDUCATION

Required: HPE 112, 113, 210, 211, 224, 310, 313, 324.
Electives: (1 or 2 hours) HPE 325, 410, 413, 414.

HISTORY

Required: Hist. 111, 112, 213.
Electives: (9 hours) By advisement.

LIBRARY SCIENCE

See Curriculum in Library Science.

MATHEMATICS

Required: Math 111.
Electives: (15 hours) Highly recommended electives are Math. 211, 212, 213, 214, 215. Other electives may be chosen by advisement.

MUSIC

No specific courses are required for a Music concentration because of the differences in background and the differences in specific goals of the students who elect this concentration. The Department of Education has requested that all state colleges offering a concentration in Music develop a program which will meet the individual's needs and goals and at the same time will include, as far as possible, courses from five distinct areas of music. These five areas are:

1. Technical Courses (theory, etc.)
2. History and literature of music
3. Professional techniques
4. Applied music
5. Music organizations

NATURAL SCIENCES BROAD FIELD

Required: Sci. 111, 112, Biol. 111, E.S. 111.
Electives: (9-12 hours) Biol. 202 or 351, Geog. 252, 351, 353.

PHILOSOPHY

Required: Phil. 211, 255, 256.
Electives: (9 hours) By advisement.

POLITICAL SCIENCE

Required: P.S. 210, 211.
Electives: (12 hours) By advisement.

PSYCHOLOGY

Required: Psy. 211, 322, and 331.
Electives: (9 hours) By advisement.
Recommended courses: Psy. 225, 230, 231, 355, 455, 456.

READING EDUCATION

Required: El. Ed. 323, 326; Ed. 221, 224.
Electives: (6 hours) Art 234, 313; E. Ch. 332; HPE 310; Psy. 225, 331, 355; Soc. 361, 362, 363; Sp. Ed. 210, 405; SCT 252, 455; SPA 450, 455.

SPEECH COMMUNICATION AND THEATER

Required: SCT 113, 251, 354, 252, 455.
Electives: (By advisement 3-9 sem. hrs.)

SOCIAL STUDIES BROAD FIELD

Required: Econ. 211; Hist. 111, 112, 213; Pol. Sci. 210, 211; Soc. 211.
Electives: (3 semester hours)

SOCIOLOGY-ANTHROPOLOGY BROAD FIELD

Required: Soc. 211; Anth. 211.
Electives: (18 semester hours)

EARLY CHILDHOOD EDUCATION

Students are admitted during their sophomore year into the Early Childhood Education Certification program by formal application (available in the Education Office) to the Early Childhood Committee and approval by the staff of the Department of Education. The program has a multiple theoretical base combining the influences of Piaget, Skinner, Dewey, Isaacs and to a lesser degree, Montessori. It takes the "whole child" approach giving equal emphasis to intellectual, social, and

emotional development. Play is emphasized as a primary means of learning, yet teachers encourage skill mastery in specific subject areas by means of freedom of choice and individualized instruction. The Program is designed for teachers of children, ages 2-8.

Objectives

1. To be able to serve as adult models for children.
2. To be able to plan learning activities and to evaluate children's progress.
3. To be able to work with and train aides and volunteers.
4. To gain skill in working with parents and staff and in use of community resources.
5. To develop skills of mastery discovery, integration, and the ability to see relationships.
6. To organize, categorize, and solve problems.
7. To develop a positive self-image, creativity, and initiative.
8. To direct instruction and reinforce student behavior.

Program Requirements

GENERAL EDUCATION

To qualify for graduation, each student must satisfy the general distribution requirements noted on pages 53-54.

PROFESSIONAL COMPETENCY

The Early Childhood Certification candidate is expected to show competency in the following content areas through course work taken as free electives or through competency examinations in these content areas: art; biology; chemistry or physics; earth science; geography; health and physical education; music; political science; speech; English grammar or literature; U.S. history; and modern civilization.

PROFESSIONAL EDUCATION

The following courses are required:

			c.h.	s.h.
Art	222	Teaching Art in the Elementary Grades	3	3
Ed.	329	Audio-Visual Education	3	2
El. Ed.	110	Introduction to Elementary Education	3	3
El. Ed.	326	Reading Problems in the Elementary School	3	3
Music	132	Literature and Materials in Music II E	3	3
Psy.	322	Educational Psychology	3	3
El. Ed.	422	Professional Practicum and School Law	2	2
El. Ed.	424	Student Teaching	30	12

NOTE: Students will spend 12 semester hours student teaching in pre-school or kindergarten, and grades 1-3.

PROFESSIONAL CORE

The professional core should be taken in the 5th or 6th semester; student teaching in the following semester. A special section is reserved for Early Childhood Education candidates:

			c.h.	s.h.
El. Ed.	323	Teaching of Reading (Primary)	3	3
El. Ed.	324	Teaching of Elementary School Mathematics (Primary)	3	3
El. Ed.	325	Modern Curriculum & Methods	5	5
El. Ed.	331	Children's Literature (Primary)	3	3
Sci. Ed.	322	Teaching Science in the Elementary School	3	3

AREA OF SPECIALIZATION

Students in the Early Childhood Education Program will complete 10–15 hours of work in courses specifically designed to develop behavioral competency as described in the general objectives of the certification program and particular objectives for each course on file in the Department of Education Office.

E. Ch.	332	Nursery — Kindergarten	3
E. Ch.	321	Child Development	3
E. Ch.	231	Creative Activities	3
E. Ch.	335	Seminar in Early Childhood	1–6

Electives (12 hours) chosen from any of four areas with approval of advisor: Art, General Studies, H.P.E., Music, Psychology, Sociology, S.C.T., Special Education.

Approved electives: Choose 12 hours

Art	231	Studio Research	3
Art	234	Elementary Art Workshop	3
Art	235	Practical Problems in Art	3
E. Ch.	401	Creative Response to Conflict	3
E. Ch.	420	Incidental Learning	3
G.S.	330	Problems and Prospects in the Inner City	3
HPE	224	Elementary School Act. I	1
HPE	324	Elementary School Act. II	2
HPE	414	First Aid & Safety	2
Music	231	Teaching Music Creatively	3
Music	232	Keyboard Skills	3
Music	233	Song Literature for Elementary Teachers	3
Music	431	Music in Early Childhood	3
Psy.	225	Psychology of Adjustment	3
Psy.	260	Developmental Psychology	3
Psy.	331	Child Psychology	3
SCT	255	Creative Dramatics for Elementary Teachers	3
Soc.	351	Contemporary Social Problems	3
Soc.	352	The Family	3
Soc.	362	Racial, Ethnic, & Minority Problems	3
Sp. Ed.	210	Human Exceptionalities	3

TYPICAL PROGRAM FOR EARLY CHILDHOOD EDUCATION

1ST SEMESTER

Eng.	111	Eng. Comp	3
Math.	111	Basic Math	3
HPE		Activity	1
Gen. Ed.		Electives	9
			16

2ND SEMESTER

SCT	113	Fundamentals	3
El. Ed.	110	Intro. to El. Ed.	3
HPE	111	Health	2
Gen. Ed.		Electives	9
			17

3RD SEMESTER

Psy.	211	General Psy.	3
HPE	223	Elementary	1
E. Ch.	332	Nursery — Kng.	3
Gen. Ed.		Electives	9
			16

4TH SEMESTER

E. Ch.	231	Creative Act.	3
E. Ch.	321	Child Dev	3
Gen. Ed.		Electives	12
			18

5TH SEMESTER

Psy.	322	Ed. Psy.	3
Ed.	329	Audio-Visual Ed.	2
Art	222	Tch. Art	3
Academic		Electives	9
			17

6TH SEMESTER

Block-E. Ch.		Section	17

7TH SEMESTER

El. Ed.	424	Student Tchg.	12
El. Ed.	422	Prof. Practicum	2
			14

8TH SEMESTER

El. Ed.	326	Reading Probs.	3
Gen. Ed.		Electives	9
E. Ch.	335	Seminar in E. Ch.	3
Academic		Electives	3
			15-18

ENVIRONMENTAL EDUCATION

Sponsored by an interdisciplinary committee, the curriculum in environmental education, open only to students who are enrolled in or have completed a teacher education program, leads to an endorsement on any instructional certificate and prepares teacher-educators to develop and implement in-school and outdoor environmental education programs in both elementary and secondary schools. Since the program is competency based, the total semester hours needed to complete it will depend upon the student, his or her major field of study, and outside work experience. Students applying for admission in their freshman year may normally expect to complete the program within the usual number of hours required for graduation.

Graduate students in some areas may also complete as part of a Master's program an endorsement to their instructional certificate in Environmental Education by selecting appropriate courses under advisement.

Application for admission to the program is through the Chairman of the Environmental Education Committee.

REQUIRED COURSES

			c.h.	s.h.
Envir. St.	401	Environmental Problems in Society	3	3
Geog.	254	Conservation of Natural Resources	3	3
Ed.	401	Methods in Environmental Education	3	3
El. Ed. or Ed.	424	Student Teaching	Variable Credit	

REQUIRED AREAS OF STUDY

In addition to the courses listed above, students need additional experiences and competencies in field studies, nature oriented studies, and man oriented studies to further their understanding of the relationships between human institutions and value systems and their

supporting environment. A listing of courses appropriate to these areas can be obtained from the Dean, School of Professional Studies.

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Eugene S. Sobolewski, M.Ed., Chairman

Professor: Lignelli; *Associate Professors:* Baschnagel, Bubb, Jacks, Leas, Leonard, Pae, Ruslavage, Shope, Sobolewski; *Assistant Professors:* DeGregorio, English, Miller, Rutt, Weaver; *Instructors:* Davis, Ferguson

Through its general education courses and intramural program, the department provides students with extensive opportunities to develop sound health habits and life-long skills in a variety of sports and other physical activities. Although the department does not offer any programs leading to the bachelor's degree, it does sponsor curricula leading to teacher certification in athletic coach and safety education/driver training.

ATHLETIC COACH — 18 semester hours

The coaching certification program has been established for those persons who would like to coach in interschool athletic programs, but do not have a degree in physical education. Interested students who are enrolled in the College can obtain applications for program admission through the departmental office. Other students with an interest in the program should contact the Dean's office, School of Professional Studies.

REQUIRED

			s.h.
HPE	408	Foundations of Athletics	3
HPE	409	Kinesiological Foundations of Coaching	3
HPE	411	Physiological Foundations of Coaching	3
HPE	412	Scientific Bases of Athletic Training	3

ELECTIVE COURSES (Select 3)

Theory and Techniques of Coaching

HPE	238	Swimming and Golf Coaching	2
HPE	247	Gymnastics and Tennis Coaching	2
HPE	248	Wrestling and Baseball Coaching	2
HPE	250	Football Coaching	2
HPE	251	Basketball Coaching	2
HPE	254	Volleyball and Track and Field Coaching	2

SAFETY EDUCATION/DRIVER TRAINING — 12 semester hours

The program in safety education provides students with an opportunity to extend their teaching certificates to include teaching of safe driving skills and positive attitudes toward safety. With reference to certification, it is open only to students who have completed or are enrolled in another teacher education program.

REQUIRED

			s.h.
S.E.	351	Driver Education and Traffic Safety	3
S.E.	211	General Safety Education	3

ELECTIVE COURSES (Select 2)

S.E.	212	Organization and Administration of Safety Education	3
S.E.	213	Materials and Methods of Teaching Safety in the Secondary Schools	3
S.E.	214	The Psychology of Accident Prevention	3

LIBRARY SCIENCE

Information on certification as a school librarian in Pennsylvania is included under the School of Library Science. See pages 83–85.

MUSIC EDUCATION

The curriculum for majors in music education at Clarion State College, leading to the degree Bachelor of Science in Music Education, combines a broad requirement in general education with advanced study in theory, history and literature of music, applied music, specialized courses in music education, and participation in performing organizations. The emphasis of the program is two-fold:

A. The achievement of significant musical understanding and ability: *Musicianship.*
B. The development of skills and techniques necessary for the effective communication of music understanding and ability to others: *Teaching Ability.*

The purpose of this program is to prepare prospective public school teachers specializing in music education, with certification in all of the following areas:

A. Elementary music education, from kindergarten through the sixth grade, vocal and instrumental.
B. Junior high school music programs, including general music, instrumental and vocal classes.
C. Secondary school music programs, including all vocal and instrumental activities, general music, and elective academic courses.

PROGRAM REQUIREMENTS

General Education

The general education distribution for all students in the college is presented on pages 53-54.

Professional Education

			Sem. Hrs.
Ed.	223	Social Foundations of Education	3
Psy.	322	Educational Psychology	3
Psychology elective from *one* of the following:			
Psy.	260	Developmental Psychology	3
Psy.	321	Psychology of Adolescence	3
Psy.	331	Child Psychology	3
Mus.	333	Elementary Music Methods	3
Mus.	334	Junior High & Secondary Music Methods	3
Mus.	362	Instrumental Methods	2
Mus.	363	Vocal Methods	2
Ed.	422	Professional Practicum	2
Ed.	432	Student Teaching	10
		Total	31

Area of Specialization

Mus.	135	Theory of Music I	4
Mus.	136	Theory of Music II	4
Mus.	235	Theory of Music III	4
Mus.	236	Theory of Music IV	4
Mus.	151	History & Literature of Music I	3
Mus.	152	History & Literature of Music II	3
Mus.	251	History & Literature of Music III	3
Mus.	252	History & Literature of Music IV	3
Mus.	365	Conducting I	2
Mus.	366	Conducting II	2
Mus.	367	Orchestration	2

KEYBOARD AND VOICE PROFICIENCY

*Mus.	160	Piano Class I	1
Mus.	161	Piano Class II	1
Mus.	171	Piano	1
*Mus.	162	Voice Class I	1
Mus.	163	Voice Class II	1
*Elective			(3)

PIANO COMPETENCY TEST

The Piano Competency Test is required of all Music Education majors in order to qualify for student teaching. Students may apply for the Competency Test at any time they feel ready as long as it is not later than the end of their junior year.

INSTRUMENTAL TECHNIQUES ..... Minimum of 5

Mus.	261	I:	Violin, Viola
Mus.	262	II:	Cello, String Bass
Mus.	263	III:	Flute, Oboe, Saxophone
Mus.	264	IV:	Clarinet, Bassoon

*Students whose applied field of performance is Voice or Piano will substitute an approved music elective.

Mus. 265 V: Trumpet, French Horn
Mus. 266 VI: Trombone, Tuba
Mus. 267 VII: Percussion

APPLIED FIELD OF PERFORMANCE 7

Instrument — (Mus. 164, 165, 166, 167, 168, 169 or 170); Piano (Mus 171). Voice (Mus 172); Organ (Mus. 173)

PERFORMING ORGANIZATION
Seven semesters of participation is required. Optional 1 credit per semester may be counted toward graduation. No more than 8 credits can be counted toward graduation requirements.
Total credits in specialization sequence 51-52

ATTENDANCE/PERFORMANCE AT STUDENT RECITALS
Election of Music 300 for seven semesters -0- credit satisfies the departmental requirement for bi-weekly attendance and optional performance on the student recital series. For the junior and senior recital, a permission audition is required in the preceding spring semester of the academic year in which the recital is scheduled.

TYPICAL PROGRAM IN MUSIC EDUCATION

Sample four-year curriculum for students whose field of performance is instrumental. The curriculum for students whose field of performance is piano or voice is similar.

1ST SEMESTER: 16 s.h.

	s.h.				s.h.
	Gen. Ed. requirements or Electives	9	Mus.	135	Theory of Music I 4
					*Applied Music 1
			Mus.	160	Piano Class I 1
					**Inst. Tech. 1
					***Performing Org. 0-1
		9			7-8

2ND SEMESTER: 17 s.h.

	Gen. Ed. requirements or Electives	9	Mus.	136	Theory of Music II 4
					*Applied Music 1
HPE	Physical Education	1	Mus.	161	Piano Class II 1
					*Inst. Tech. 1
		10			Performing Org. 0
					7

3RD SEMESTER: 17 s.h.

	Gen. Ed. requirements or Electives	6	Mus.	235	Theory of Music III 4
			Mus.	151	His. & Lit. of Mus. I 3
HPE	Physical Education	1			*Applied Music 1
			Mus.	171	Piano 1
		7			*Inst. Tech. 1
					Performing Org. 0
					10

*Students whose applied field of performance is Voice or Piano will substitute an approved music elective.

**Five out of seven Instrumental Techniques (Mus. 261-267) are the minimum requirement. Each family of instruments must be represented in the selection of Instrumental Techniques.

***Participation is required; however, a student may elect a performing organization for 1 credit or no credit. No more than 8 credits can be counted toward the graduation requirement.

4TH SEMESTER: 17 s.h.

		Gen. Ed. requirement or Elective 3	Mus.	236	Theory of Music IV 4
Ed.	223	Soc. Found. of Ed. 3	Mus.	152	His. & Lit. of Mus. II ... 3
HPE		Health Education 2			**Applied Music 1
		8			*Inst. Tech. 1
					Performing Org. 0
					9

5TH SEMESTER: 18 s.h.

		Gen. Ed. requirements or Electives 2	Mus.	251	His. & Lit. of Mus. III .. 3
Psy.	322	Educational Psy. 3	Mus.	365	Conducting I 2
Mus.	333	Elem. Mus. Methods ... 3			**Applied Music 1
Mus.	363	Vocal Methods 2	Mus.	162	Voice Class I 1
		10			*Inst. Tech. 1
					Performing Org. 0
					8

6TH SEMESTER: 18 s.h.

		Gen. Ed. requirements or Electives 3	Mus.	252	His. & Lit. of Mus. IV .. 3
		Psychology Elective (note Professional Education) 3	Mus.	366	Conducting II 2
Mus.	334	Jr. High & Sec. Mus. Methods 3	Mus.	163	**Applied Music 1
Mus.	362	Instrumental Methods . 2			Voice Class II 1
		11			Performing Org. 0
					7

7TH SEMESTER (or 8th): 15 or 16 s.h.

		Gen. Ed. requirements or electives 12	Mus.	367	Orchestration 2
		12			**Applied Music 1
					Performing Org. 0
					3

8TH SEMESTER (or 7th): 12 s.h.

Ed.	422	Professional Practicum 2
Ed.	432	Student Teaching 10
		12

Total Credits required for Graduation: 130–131.

DEPARTMENT OF NURSING

T. Audean Duespohl, M.Ed., M.S., Chairman

Associate Professor: Duespohl; *Assistant Professors:* Amsdell, Gracy, Harrison, Jones, Shiley; *Instructor:* Palmquist

The Nursing Department offers the degree of Associate of Science in Nursing as a two year technical nursing program at the Venango Campus in Oil City, Pennsylvania. It also provides opportunities in continuing education for registered nurses and other health related personnel.

For a description of the associate degree program and objectives, see Venango Campus, pp. 128–131.

*Five out of seven Instrumental Techniques (Mus. 261–267) are the minimum requirement. Each family of instruments must be represented in the selection of Instrumental Techniques.
**Students whose applied field of performance is voice or piano will substitute an approved music elective.

SCHOOL NURSING

Sponsored by an interdisciplinary committee the curriculum in school nursing, open only to persons who are registered nurses, leads to the degree of Bachelor of Science in Education with certification as a school nurse. Registered nurses ordinarily receive sufficient advanced standing credit that the program can be completed with 60 semester hours of study as distributed below.

PROGRAM REQUIREMENTS

GENERAL EDUCATION

English Composition	3
Speech	3
Social Sciences	9
Humanities	9
Personal Development & Life Skills	6
Total	30

PROFESSIONAL EDUCATION

			c.h.	s.h.
Ed.	223	Social Foundations of Education	3	3
Psy.	260	Developmental Psychology	3	3
Psy.	322	Educational Psychology	3	3
Ed.	329	Audio-Visual Communication	3	2
		Total		11

SPECIALIZED EDUCATION

N.	351	Public School Nursing	3	3
N.	352	Specialized Health Problems of School Aged Children	3	3
N.	353	Family Case Work	3	3
N.	354	Public Health Nursing	3	3
S.E.	211	General Safety Education	3	3
		Total		15
		Related Electives		4

SECONDARY EDUCATION

Baccalaureate programs leading to certification in secondary education (7-12) are available in: Biology, Chemistry, Communication Arts, Earth and Space Science, English, French, General Science, German, Mathematics, Physics, Russian, Social Studies, and Spanish. Each program is designed to provide students with a thorough foundation in the teaching specialty and with the professional skills needed to work effectively with adolescents in learning environments.

PROGRAM REQUIREMENTS

General Education

Secondary education students fulfill the general education requirements by following the distribution noted on pages 53-54. However,

within certain majors there may be slight deviations from the pattern presented and a secondary student should check with the departmental office of the discipline in which he is majoring to ascertain any variations.

Professional Education

The following courses are required of all secondary education majors:

			c.h.	s.h.
Ed.	223	Social Foundations of Education	3	3
		Select course in Methods and Evaluation in field of Specialization	3	3
Ed.	329	Audio-Visual Communication	3	2
Psy.	322	Educational Psychology	3	3
Psy.	260	Developmental Psychology	3	3
Ed.	422	Professional Practicum Including School Law	2	2
Ed.	424	Secondary Student Teaching	30	12

TYPICAL PROGRAM FOR SECONDARY EDUCATION MAJORS

1ST SEMESTER

Eng.	111	English Composition	3
		Math, Logic, or Comp. Sci.	3
HPE	111	Health	2
		General Education	9
			17

2ND SEMESTER

SCT	113	Speech Fundamentals	3
		General Education	7
		Major Field or Elect.	6
		Phys. Ed. Activity	1
			17

3RD SEMESTER

Psy.	211	General Psy.	3
		General Education	6
		Major Field or Elect.	6
		Phys. Ed. Activity	1
			16

4TH SEMESTER

Psy.	260	Developmental Psy.	3
		General Education	6
		Major Field or Elect.	6
			15

5TH SEMESTER

		General Education	3
		Major Field or Elect.	12
			15

6TH SEMESTER

Ed.	223	Social Foundations	3
Ed.	329	Audio-Visual Com.	2
		Methods Course	3
Psy.	322	Educational Psy.	3
		Major Field or Elect.	6
			17

7TH SEMESTER

		General Education	3
		Major Field or Elect.	15
			18

8TH SEMESTER

Ed.	422	Prof. Prac. & Sch. Law	2
Ed.	424	Student Teaching	12
			14

SECONDARY CERTIFICATION SPECIALIZATION

Secondary education majors may choose areas of specialization from the approved programs below. Curriculum requirements are noted for each area of specialization.

BIOLOGY — 50 Semester Hours

REQUIRED

			c h	s.h.
Biol.	153	Introductory Animal Biology	6	4
Biol.	154	Introductory Plant Biology	6	4
Biol.	201	Genetics	5	3
Biol.	202	Environmental Biology	5	3
Biol.	203	Cell Biology	5	3
Chem.	153	General Chemistry I	6	4
Chem.	154	General Chemistry II	6	4
Chem.	254	Introductory Organic Chemistry	6	4
Ed.	332	Biomethods	3	3
Math.	171	Precalculus	4	4
Phy.	251	General Physics I	6	4
Phy.	252	General Physics II	6	4

ELECTIVES (Three required)

Biol.	341	General Microbiology	8	4
Biol.	351	Field Botany	5	3
Biol.	352	Taxonomy of Vascular Plants	5	3
Biol.	353	Ornithology	5	3
Biol.	354	Entomology	5	3
Biol.	356	Field Zoology — Invertebrate	5	3
Biol.	357	Field Zoology — Vertebrate	5	3
Biol.	360	Problems in Biology		1-4
Biol.	400	Special Topics	2	2
Biol.	401	Radiation Biology	5	3
Biol.	420	Vertebrate Biology and Systematics	5	3
Biol.	424	Fresh Water Ichthyology	2	1
Biol.	425	Fisheries Biology	5	3
Biol.	442	Microbial Physiology	6	4
Biol.	443	Virology	3	3
Biol.	444	Immunology	6	4
Biol.	446	Pathogenic Microbiology	6	4
Biol.	451	Animal Physiology	5	3
Biol.	452	Plant Physiology	5	3
Biol.	460	Comparative Vertebrate Morphology	5	3
Biol.	461	Vertebrate Embryology	5	3
Biol.	462	Histology	5	3
Biol.	464	Developmental Biology	5	3
Biol.	470	Animal Ecology	5	3
Biol.	471	Plant Ecology	5	3
Biol.	472	Parasitology	5	3
Biol.	478	Biome Studies	3	3
Biol.	490	Evolution	3	3
Biol.	491	Biogeography	3	3
Chem.	453	Biochemistry	6	4

Mathematics 151 and 152 may be substituted for 171. In meeting general education requirements (see pages 53-54), the distribution in Natural Sciences and Mathematics may be met with supplemental courses from the field of specialization. Students should note that no more than one non-laboratory elective may be included in credits for the major.

CHEMISTRY — 28 Semester Hours

REQUIRED

			c.h.	s.h.
Chem.	151	Chemical Principles I	4	4

*Chem.	161	Chemical Principles Lab I	3	1
Chem.	152	Chemical Principles II	4	4
*Chem.	162	Chemical Principles Lab II	3	1
Chem.	251	Organic Chemistry I	3	3
*Chem.	261	Organic Chemistry Lab I	3	1
Chem.	252	Organic Chemistry II	3	3
*Chem.	262	Organic Chemistry Lab II	6	2
		Electives numbered 300 or above		9

ELECTIVES

Chem.	255	Industrial Chemistry	5	3
Chem.	352	Techniques and Instruments I	8	4
Chem.	354	Physical Chemistry I	3	3
Chem.	355	Physical Chemistry II	3	3
Chem.	356	Techniques and Instruments II	6	2
Chem.	357	Techniques and Instruments III	5	3
Chem.	359	Advanced Organic Chemistry	3	3
Chem.	453	Biochemistry	3	3
*Chem.	463	Biochemistry Laboratory	3	1
Chem.	455	Advanced Physical Chemistry	3	3
Chem.	456	Advanced Inorganic Chemistry	3	3
Chem.	459	Demonstrations in Chemistry	5	3
Chem.	460	Radiochemistry Tecnhiques	4	2
Chem.	461	Techniques and Instruments IV	4	2
Chem.	465,466	Chemical Research		1–3
Chem.	470	Chemical Literature and Seminar	1	1
Chem.	471	Special Topics in Chemistry	3	3
Chem.	485	Problems in Chemical Education		1–3
Phy.	353/363	Atomic Physics	6	4

ADDITIONAL REQUIREMENTS

Math	171	Precalculus	4	4
Math	172	Calculus with Analytical Geometry I	4	4
Math	271	Calculus with Analytical Geometry II	4	4
		and either		
Phy.	251	General Physics I	6	4
Phy.	252	General Physics II	6	4
		or		
Phy.	258	Introductory Physics Lecture I	5	4
Phy.	268	Introductory Physics Laboratory I	3	1
Phy.	259	Introductory Physics Lecture II	5	4
Phy.	269	Introductory Physics Laboratory II	3	1

Students who have taken Chemistry 153 and Chemistry 154 may be permitted, upon consideration of their performance, to substitute these courses for Chemistry 151 and Chemistry 152. A total of 28 semester hours in chemistry must still be taken.

COMMUNICATION ARTS — 45 Semester Hours

The Communication Arts program represents a new concept in the preparation of prospective teachers of communication-related subjects. It is designed to equip the teacher with the ability to help students make meaning out of their experience through the uses of language and all those behaviors, verbal and nonverbal, associated with the uses of language. The candidate may develop a program that meets his special

*These laboratories must be taken concurrently with the lecture course.

needs and interests as a potential teacher of English, speech, drama, and other communication subjects. Successful completion of the program leads to the communication certification.

CORE:

			c.h.	s.h.
A. Required Core (18 crs.)				
Eng.	200	Composition and Literature	3	3
Eng.	221	English Literature: Beginnings to 1800	3	3
		or		
Eng.	222	English Literature: 1800 to the Present	3	3
Eng.	252	Introduction to English Language	3	3
SCT.	200	Comm. Theory	3	3
SCT.	354	Oral Interpretation	3	3
		or		
SCT.	253	Introduction to Theater	3	3
SCT.		Speech Elective	3	3

B. Concentration: 18 hours in either speech or literature; or 9 hours each in two of the following: speech, theatre, composition, literature, linguistics, or non-print media

C. Supplements to the Concentration (6 cr.)
SCT Students — 6 hours English numbered 300 or above
English Students — 6 hours SCT numbered 300 or above

D. Reading Supplement — 3 hours from Ed. 321, 333, or 426.

EARTH AND SPACE SCIENCE — 48 Semester Hours

REQUIRED

			c.h.	s.h.
E.S.	200	Descriptive Astronomy	3	3
E.S.	252	Physical Geology	3	3
E.S.	258	Historical Geology	3	3
E.S.	262	Oceanography	3	3
E.S.	351	Meteorology	3	3
Biol.	153	Introductory Animal Biology	6	4
Biol.	154	Introductory Plant Biology	6	4
Chem.	153	General Chemistry I	3	3
Chem.	163	General Chemistry Lab I	3	1
Chem.	154	General Chemistry II	3	3
Chem.	164	General Chemistry Lab II	3	1
Phy.	251	General Physics I	6	4
Phy.	252	General Physics II	6	4

ELECTIVES

E.S.	201	Stellar Astronomy	3	3
E.S.	253	Land Forms	3	3
Geog.	259	Map Interpretation	3	3
E.S.	260	Minerals	3	3
E.S.	261	Rocks	3	3
Geog.	352	Climatology	3	3
Geog.	451	Cartography I	5	3
Geog.	455	Cartography II	5	3
Geog.	456	Aerial Photo Interpretation	4	3

In satisfying the general education distribution (see pages 53-54), it is recommended that Earth and Space majors schedule Mathematics 171.

ENGLISH — 42 Semester Hours

REQUIRED (24 credit hours)

			c.h.	s.h.
Eng.	200	Composition and Literature	3	3

Eng.	201	Advanced Composition	3	3
Eng.	221	English Literature: Beginning to 1800	3	3
Eng.	222	English Literature: 1800 to the Present	3	3
Eng.	252	Introduction to the English Language	3	3
Eng.	253	English Grammar and Usage	3	3
Eng.	320	Studies in 19th Century American Fiction	3	3
Eng.	322	Studies in 20th Century American Fiction	3	3

ELECTIVES (18 credit hours, 12 of which must be taken on the 300 and 400 levels)

SCT.	113	Fundamentals of Speech	3	3
Eng.	202	Beginning Creative Writing	3	3
Eng.	203	The Craft of Fiction	3	3
Eng.	204	The Craft of Poetry	3	3
Eng.	206	Business Writing	3	3
Eng.	209	Special Topics in Literature	3	3
Eng.	210	The Modes of Literature	3	3
Eng.	230	Contemporary Black American Literature — 1900 to Present	3	3
Comm.	250	Journalism	3	3
Eng.	301	Medieval Literature	3	3
Eng.	303	Sixteenth Century Prose and Poetry	3	3
Eng.	305	Studies in Seventeenth Century English Literature	3	3
Eng.	307	Studies in Eighteenth Century English Literature	3	3
Eng.	309	English Romantic Literature: 1789-1832	3	3
Eng.	311	Studies in Nineteenth Century English Literature	3	3
Eng.	332	Nineteenth Century British Novel	3	3
Eng.	333	Twentieth Century British Novel	3	3
Eng.	339	Short Fiction of the Twentieth Century	3	3
Eng.	341	Twentieth Century Poetry	3	3
Eng.	343	Modern Drama	3	3
Eng.	345	English Drama	3	3
Eng.	385	American Poetry to 1900	3	3
Eng.	412	Shakespeare I	3	3
Eng.	413	Shakespeare II	3	3
Eng.	455	Criticism	3	3
Eng.	456	English Honors Seminar	3	3
Eng.	457	Introduction to Linguistics	3	3
Eng.	458	Linguistic History of English Language	3	3
Eng.	460	Independent Study		1-6
Eng.	461	Writers' Workshop	3	3

READING SUPPLEMENT — 3 hours from Ed. 221, 333, or 426.

FRENCH — 30 Semester Hours, excluding French 151 and 152

REQUIRED

			c.h.	s.h.
*Fr.	251	Intermediate French I	3	3
*Fr.	252	Intermediate French II	3	3
Fr.	255	French Civilization I	3	3
Fr.	256	French Civilization II	3	3
Fr.	351	Advanced Grammar & Composition	3	3

ELECTIVES

Fr.	260	The French Short Story	3	3
Fr.	353	The Modern French Drama	3	3

*May be omitted upon demonstration of proficiency at second year level.

Fr.	354	The Modern French Novel	3	3
Fr.	355	French Romanticism	3	3
Fr.	356	French Poetry from Baudelaire to Surrealism	3	3
Fr.	357	The French Realistic Novel	3	3
Fr.	358	The Literature of the Age of Enlightenment	3	3
Fr.	359	The Literature of the Classical Age	3	3
Fr.	451	Supervised Readings in French Literature	3	3

Students participating in foreign study programs must complete at least six hours of French literature at Clarion State College, regardless of the number of credits earned abroad.

GENERAL SCIENCE — 42 Semester Hours

A program specifically designed to prepare students to teach science at the junior high or middle school level. General Science majors are not prepared to teach specialized high school courses such as biology, chemistry, physics, or earth science. Likewise, a Biology, Chemistry, or Physics major is not prepared to teach General Science unless his college program is broadened to include all of the required science courses of the General Science curriculum. A student who desires to teach only specialized courses should major in the specific subject area.

REQUIRED			c.h.	s.h.
Biol.	153	Introductory Animal Biology	6	4
Biol.	154	Introductory Plant Biology	6	4
Chem.	153	General Chemistry I	6	4
Chem.	163	General Chemistry Laboratory I	3	1
Chem.	154	General Chemistry II	6	4
Chem.	164	General Chemistry Laboratory II	3	1
*Phy.	251	General Physics I	6	4
*Phy.	252	General Physics II	6	4
E.S.	252	Physical Geology	3	3
E.S.	351	Meteorology	3	3
E.S.	353	Descriptive Astronomy	3	3
Sci. Ed.	460	Science Curriculum in the Junior High School	3	3

Three (3) additional science courses will be needed to give a minimum of 42 credits. Students, with advisement, may elect courses from one field only, or courses may be distributed among biology, chemistry, or physics.

Additionally, all General Science majors are required to take Sci. Ed. 460: Science Curriculum in the Junior High School.

Since General Science is an interdisciplinary major, students must maintain a quality point average of 2.00 in each of the fields, physics, chemistry, biology, and earth science.

A Biology, Chemistry, or Physics major may receive provisional certification in General Science only if his program of courses has

*Mathematics 171 is a prerequisite. Mathematics 151 and 152 may be substituted for 171. Majors in General Science should not include Biology 111, Mathematics 112, Physical Science 111 and 112, and Earth Science 111 in their general education programs (see pages 53-54). Mathematics 171 or 151 and 152 should be elected.

included, satisfactorily, all the basic courses in the General Science curriculum.

GERMAN — 30 Semester Hours, excluding German 151 and 152

REQUIRED			c.h.	s.h.
**Ger.	251	Intermediate German I	3	3
**Ger.	252	Intermediate German II	3	3
Ger.	255	Germanic Civilization I	3	3
Ger.	256	Germanic Civilization II	3	3
Ger.	351	Advanced Grammar & Composition	3	3

ELECTIVES				
Ger.	253	Scientific German	3	3
Ger.	254	Commercial German	3	3
Ger.	260	The German Short Story	3	3
Ger.	261	Business German	3	3
Ger.	350	Advanced Conversation and Interpretation	3	3
Ger.	352	Survey of German Literature through the Classical Age	3	3
Ger.	353	The Modern German Drama	3	3
Ger.	354	The Modern German Novel	3	3
Ger.	355	German Romanticism	3	3
Ger.	358	Classical German Literature: Goethe, Schiller & Lessing	3	3
Ger.	360	Contemporary German Prose	3	3
Ger.	361	German Lyric Poetry	3	3
Ger.	451	Supervised Readings in German Literature	3	3

Students participating in foreign study programs must complete at least six hours of German literature at Clarion State College, regardless of the number of credits earned abroad.

MATHEMATICS — 34 Semester Hours

REQUIRED			c.h.	s.h.
Math.	171	Precalculus	4	4
Math.	172	Calculus with Analytic Geometry I	4	4
Math.	271	Calculus with Analytic Geometry II	4	4
Math.	272	Calculus with Analytic Geometry III	4	4
Math.	371	Modern Algebra I	3	3
Math.	372	Modern Algebra II	3	3

ELECTIVES				
Math.	350	Ordinary Differential Equations	3	3
Math.	352	Probability	3	3
Math.	357	Modern Geometry	3	3
Math.	360	Numerical Methods in Mathematics I	3	3
Math.	361	Numerical Methods in Mathematics II	3	3
Math.	369	Boolean Algebra	3	3
Math.	370	Introduction to Linear Algebra	3	3

**May be omitted upon demonstration of proficiency at second year level.

Math.	454	Theory of Numbers	3	3
Math.	456	Mathematical Statistics	3	3
Math.	471	Advanced Calculus I	3	3
Math.	472	Advanced Calculus II	3	3
Math.	473	Elementary Topology	3	3
Math.	480	Topics	3	3
Math.	499	Independent Study	1-3	1-3

After passing any other college mathematics course, students may not elect Math. 100 for credit.

Majors are encouraged to select Physics 258 and/or Chemistry 151 or 153 instead of Basic Physical Science 111-112.

Concurrent certification in Physics is possible with the election of Phy. 258, 259, 351, 352, 353, 354 and 370 or 453. Students admitted into both programs should substitute Ed. 335 for Ed. 324.

PHYSICS — 30 Semester Hours

REQUIRED:

			c.h.	s.h.
Phy.	258	Introductory Physics Lecture I	5	4
*Phy.	268	Introductory Physics Laboratory I	3	1
Phy.	259	Introductory Physics Lecture II	5	4
*Phy.	269	Introductory Physics Laboratory II	3	1
Phy.	351	Mechanics	3	3
Phy.	352	Electricity and Magnetism	3	3
Phy.	353	Atomic Physics	3	3
Phy.	354	Optics	3	3
**Phy.	370	Experimental Physics	6-9	4

ELECTIVES

Phy.	355	Nuclear Physics	3	3
Phy.	356	Heat	3	3
Phy.	357	Intro to Theory of the Solid State	3	3
Phy.	453	Independent Study in Physical Measurements		2-6
Phy.	455	Electronics	5	3
Phy.	457	Demonstrations in Physics	5	3
Phy.	460	Intro. to Math. Physics	3	3
Phy.	461	Seminar	1	1

ADDITIONAL REQUIREMENTS

Chem.	153	General Chemistry I	3	3
*Chem.	163	General Chemistry Laboratory I	3	1
Chem.	154	General Chemistry II	3	3
*Chem.	164	General Chemistry Laboratory II	3	1
Math.	171	Precalculus	4	4
Math.	172	Calculus With Analytic Geometry I	4	4
Math.	271	Calculus With Analytic Geometry II	4	4
Math.	272	Calculus With Analytic Geometry III	4	4
Math.	350	Ordinary Differential Equations	3	3

Concurrent certification in Mathematics is possible with the election of Math. 371, 372, and an approved Mathematics elective. Students admitted into both programs should take Phy. 460 as their Physics elective and sustitute Ed. 335 for Ed. 334.

*These laboratories must be taken concurrently with the lecture course.
**Physics majors should schedule twice, for 2 credits each.

RUSSIAN — 30 Semester Hours, excluding Russian 151 and 152

REQUIRED			c.h.	s.h.
Russ.	251	Intermediate Russian I	4	4
Russ.	252	Intermediate Russian II	4	4
Russ.	255	Russian Civilization I	3	3
Russ.	256	Russian Civilization II	3	3
Russ.	351	Advanced Grammar & Composition	4	4

ELECTIVES				
Russ.	101	Special Topics: The European Mind	3	3
Russ.	109	Russian Literature in Translation	3	3
Russ.	253	Scientific Russian	2	2
Russ.	352	Introduction to Russian Literature	3	3
Russ.	353	The Russian Drama	4	4
Russ.	354	The Russian Novel	4	4
Russ.	355	Readings in Soviet Russian Literature	4	4
Russ.	361	Dostoevsky	4	4
Russ.	451	Supervised Readings in Russian	4	4

Students participating in Russian studies during summers in the USSR or Europe must have 2 years of Russian and at least one course in Russian Literature and Culture.

SOCIAL STUDIES — 48 Semester Hours

Selection must include courses in all seven of the following fields: Anthropology, Economics, Geography, History, Political Science, Psychology, and Sociology.

REQUIRED COMPONENTS	s.h.
American Culture	6
Behavioral Sciences	6
Economics	6
World Culture	6
Social Science Electives	6

A list of courses satisfying the above requirements may be obtained from the coordinator of the Social Studies program.

DISCIPLINE CONCENTRATION 18

Courses are to be selected from one of the disciplines below.

ANTHROPOLOGY				
Anth.	213	Introduction to Bioanthropology	3	3
Anth.	214	Principles of Human Ecology	3	3
Anth.	250	Prehistoric North America	3	3
Anth.	251	Historic Indians of North America	3	3
Anth.	353	Archaeology of Eastern North America	3	3
Anth.	354	Cultural History of Africa and Asia	3	3
Anth.	356	Field Archaeology		4
Anth.	357	Indians of South and Central America	3	3
Anth.	358	World Prehistory	3	3
Anth.	359	Primitive Science and Technology	3	3

Anth	360	Introduction to Folklore	3	3
Anth	361	Witchcraft Magic and Religion	3	3
Anth	362	History and Methods of Anthropology	3	3
Anth	400	Individual Research		2
Anth	401	Individual Research Archaeology		2
Anth	402	Individual Research Bioanthropology		2

ECONOMICS

Econ	220	Elements of Statistics	3	3
Econ	310	Microeconomic Theory	3	3
Econ	311	Macroeconomic Theory	3	3
Econ	312	Comparative Economic Systems	3	3
Econ	340	Government Regulations	3	3
Econ.	341	Public Utilities	3	3
Econ	351	Industrial Relations	3	3
Econ	361	International Economic Relations	3	3
Econ	370	Money and Banking	3	3
Econ	371	Public Finance	3	3
Econ.	410	Managerial Economics	3	3
Econ.	453	Economics Seminar	3	3
Econ	470	Business Cycles	3	3
Econ.	490	History of Economic Thought	3	3

GEOGRAPHY

Geog.	251	Economic Geography	3	3
Geog	254	Conservation of Natural Resources	3	3
Geog.	255	Trade and Transportation	3	3
Geog	256	Geography of Pennsylvania	3	3
Geog	259	Map Interpretation	3	3
Geog	352	Climatology	3	3
Geog.	354	Historical Geography of the United States	3	3
Geog	355	Geography of the Soviet Union	3	3
Geog	356	Geography of Europe	3	3
Geog	357	Geography of Asia	3	3
Geog	451	Cartography I	3	3
Geog	452	Geography of Latin America	3	3
Geog	453	Geography of Africa and Australia	3	3
Geog	454	Political Geography	3	3
Geog	455	Cartography II	3	3
Geog	456	Aerial Photo Interpretation	3	3
Geog.	459	Field Geography	3	3

HISTORY

Hist.	111	History of Ancient and Medieval Civilization	3	3
Hist.	210	The Black Experience	3	3
Hist.	215	Exploring the American Social Fabric	3	3
Hist.	254	History of Latin America: Colonial Period	3	3
Hist.	255	History of Latin America: National Period	3	3
Hist.	256	History of Pennsylvania	3	3
Hist.	310	History of the Ancient Greeks	3	3
Hist.	311	History of Rome to A.D. 565	3	3
Hist.	320	Medieval History	3	3
Hist.	330	Europe During the Renaissance	3	3
Hist.	335	Europe During the Reformation	3	3
Hist.	340	History of Europe From 1660 to 1814	3	3
Hist.	345	History of Europe From 1815 to 1924	3	3
Hist.	354	Contemporary American History	3	3
Hist.	355	Economic History of the United States	3	3
Hist.	356	Contemporary European History	3	3
Hist.	357	History of England to 1689	3	3
Hist.	358	History of England since 1689	3	3

Hist.	359	History of the American Frontier	3	3
Hist.	361	History of American Science and Technology	3	3
Hist.	362	History of Afro-America	3	3
Hist.	365	Russia to the Twentieth Century	3	3
Hist.	366	Russia in the Twentieth Century	3	3
Hist.	370	History of the Near East	3	3
Hist.	375	Traditional India	3	3
Hist.	376	Modern India-Pakistan	3	3
Hist.	385	Modern Southeast Asia	3	3
Hist.	400	Contemporary Asia Since the First World War	3	3
Hist.	439	U. S. History, National Period, 1783-1860	3	3
Hist.	440	Rise of Industrial America and the Search for Order: United States 1865-1919	3	3
Hist.	452	America as a World Power	3	3
Hist.	453	Twentieth Century World History	3	3
Hist.	454	The British Empire and Commonwealth of Nations	3	3
Hist.	456	Social and Intellectual History of the United States to 1865	3	3
Hist.	457	Social and Intellectual History of the United States since 1865	3	3
Hist.	458	English Constitutional History	3	3
Hist.	461	Colonial America	3	3
Hist.	462	American Westward Expansion (1803-1950)	3	3
Hist.	463	Civil War and Reconstruction	3	3
Hist.	467	Latin America and its World Relations	3	3
Hist.	471	The French Revolution	3	3

POLITICAL SCIENCE

P.S.	210	Introduction to Political Science	3	3
P.S.	351	State and Local Government	3	3
P.S.	352	International Relations	3	3
P.S.	353	International Organization: Theory and Practice	3	3
P.S.	354	Constitutional Law of the United States	3	3
P.S.	355	Political Parties and Elections	3	3
P.S.	365	Ancient and Medieval Political Thought	3	3
P.S.	366	Modern Political Thought	3	3
P.S.	375	Public Administration	3	3
P.S.	451	Comparative Government	3	3
P.S.	452	Government and Politics of Southeast Asia	3	3
P.S.	458	English Constitutional History	3	3

PSYCHOLOGY

Psy.	225	Psychology of Adjustment	3	3
Psy.	230	Introductory Statistics for the Behavioral Sciences	3	3
Psy.	251	Experimental Psychology	3	3
Psy.	260	Developmental Psychology	3	3
Psy.	331	Child Psychology	3	3
Psy.	340	Psychology of Women	3	3
Psy.	350	Industrial Psychology	3	3
Psy.	354	Abnormal Psychology	3	3
Psy.	360	Current Topics	3	3
Psy.	452	Physiological Psychology	3	3
Psy.	454	Personality	3	3
Psy.	455	Psychology of Learning and Motivation	3	3
Psy.	456	Psychological Tests and Measurements	3	3
Psy.	458	Sensation and Perception	3	3
Psy.	459	Comparative Psychology	3	3
Psy.	464	Introduction to Clinical Psychology	3	3

SOCIOLOGY

Soc.	300	Introduction to Sociological Research	3	3
Soc.	321	Sociology of Work	3	3
Soc.	351	Contemporary Social Problems	3	3
Soc.	352	The Family	3	3

Soc	361	Sociology of Deviant Behavior	3	3
Soc	362	Racial and Ethnic Minority Problems	3	3
Soc	363	Urban Sociology	3	3
Soc.	370	Fundamentals of Population Study	3	3
Soc.	380	Community Institutions	3	3
Soc.	395	Social Change	3	3
Social Work	311	Principles of Social Work	3	3
Social Work	312	Social Work with Groups	3	3

With authorization of the Social Studies coordinator, students can develop a behavioral science concentration.

SPANISH — 30 Semester Hours, excluding Spanish 151 and 152

REQUIRED

			c.h	s.h
*Span.	251	Intermediate Spanish I	3	3
*Span.	252	Intermediate Spanish II	3	3
Span.	255	Hispanic Civlization I	3	3
Span.	256	Hispanic Civilization II	3	3
Span.	351	Advanced Grammar & Composition	3	3

ELECTIVES

Span.	253	Commercial Spanish	2	2
Span.	350	Advanced Conversation & Composition	3	3
Span.	352	Introduction to Spanish Literature	3	3
Span.	353	The Modern Spanish Drama	3	3
Span.	354	The Modern Spanish Novel	3	3
Span.	355	The "Generation of 1898"	3	3
Span.	359	The Literature of the Golden Age	3	3
Span.	360	Survey of Spanish American Literature	3	3
Span.	361	The History of Mexican Literature	3	3
Span.	451	Supervised Readings in Hispanic Literature	3	3

Students participating in foreign study programs must complete at least six hours of Spanish or Spanish-American literature at Clarion State College, regardless of the number of credits earned abroad.

The Department of Modern Languages and Cultures at Clarion offers a 7-week summer session at the University of Valencia on the Mediterranean coast of Spain. Under the leadership of Dr. José Garciá of Clarion, courses in Spanish language and literature are offered at all levels from first semester Spanish through in-service teacher graduate work. Week-end excursions in the area and a longer trip include Alicante, Granada, Córdoba, Sevilla, and Madrid.

DEPARTMENT OF SPECIAL EDUCATION

Robert L. Kern, Ed.D., Chairman

Professors: Kern, Schreffler, Shirey, Vayda; *Associate Professor:* Kauffman; *Assistant Professors:* Dunkle, Gurecka, Huwar; *Instructors:* John, Peterson, Reed

*May be omitted upon demonstration of proficiency at second year level.

The Special Education curriculum is a competency-based program which has identified specific professional competencies regarded as essential for performance as a diagnostic/prescriptive teacher of children who have special needs. Some of these competencies are acquired through the use of self-paced study from instructional modules which detail the objective(s) to be achieved and identify the instructional materials and processes which the student may employ. The instructional modules are in the form of learning packets, or self-directed study guides, which the student may use independent of the college instructor and/or classroom. They have the characteristic of individualization, making it possible for students to proceed at their own pace according to individual abilities and initiative.

Human relations skills-training is presented through a series of sensitizing exercises which focus upon fundamental social interactions among teachers, students, administrators, and parents. These crucial teaching attitudes and behavioral skills are deliberately planned instead of being left to chance.

Training in the clinical skills of diagnosis of learning difficulties in children is conducted with individuals who come to the Special Education Department's educational appraisal clinic for intensive study. Prior to such specialized training, students engage in a wide spectrum of field experiences observing and interacting with exceptional children in school and community program settings.

Student teaching is the culminating field experience, conducted during the senior year in a team setting with joint planning and execution of an instructional program for learners who have special needs ranging from severe to mild learning handicaps. This experience is selectively video monitored, providing important feedback via the videotape which may be reviewed and analyzed to assess the effectiveness of teaching strategies and styles.

Professional Education and Area of Specialization

Ed.	223	Social Foundations of Education	3
Ed.	329	Audio-Visual Communication	2
Psy.	260	Developmental Psychology	3
Psy.	322	Educational Psychology	3
El. Ed.	323	Teaching of Reading	3
El. Ed.	324	Teaching of Elementary School Mathematics	3
SPA	457	Developmental Sequence of Language and Speech	3
Sp. Ed.	210	Human Exceptionalities	3
Sp. Ed.	215	Human Relations Skills Training	3
Sp. Ed.	220	Nature of Mental Retardation	3
Sp. Ed.	225	Early Field Experiences	1
Sp. Ed.	240	Physically Handicapped	3
Sp. Ed.	405	Learning and Behavioral Disorders	3
Sp. Ed.	410	Educational Appraisal and Prescription I	4
Sp. Ed.	415	Instructional Development and Strategies for Mildly/Moderately Handicapped	6
Sp. Ed.	420	Instructional Development and Strategies for Severely/Profoundly Multihandicapped	6
Sp. Ed.	425	Behavior Management	2

Sp. Ed.	430	Teaching/Learning Strategies	1
Sp. Ed.	450	Student Teaching	12
Ed.	422	Professional Practicum	2
RECOMMENDED ELECTIVES			15 sem hrs.

NOTE: General Education requirements are listed on pages 53-54.

TYPICAL PROGRAM FOR SPECIAL EDUCATION MAJORS

FIRST YEAR — 32 Semester Hours

			s.h				s.h
Eng.	111	English Composition	3	HPE		Activity	1
HPE	111	Health Education	2			General Education Requirements or Electives	23
Sp. Ed.	210	Human Exceptionalities	3				

SECOND YEAR — 32 Semester Hours

Psy.	111	General Psychology	3	SPA	457	Developmental Sequences of Language & Speech 3
Sp. Ed.	215	Human Relations Skills	2	Sp. Ed.	240	The Physically Handicapped 3
Sp. Ed.	225	Early Field Experiences	1	Psy.	260	Developmental Psychology 3
Ed.	223	Social Foundations	3	Psy.	322	Educational Psychology 3
HPE		Activity	1			General Education Requirements or Electives 7
Sp. Ed.	220	Nature of Mental Retardation	3			

THIRD YEAR - 33 Semester Hours

5th Semester				6th or 7th Semester			
El. Ed.	323	Teaching of Reading	3	Sp. Ed.	410	Educational Appraisal & Prescription I	4
El. Ed.	324	Teaching of Elem. School Math.	3			General Requirements	12
Sp. Ed.	405	Learning & Behavioral Disorders	3				
		General Electives	8				

FOURTH YEAR — 31 Semester Hours

7th or 6th Semester				8th Semester			
Sp. Ed.	415	Instruc. Dev. & Strategies M/MH	6	Sp. Ed.	422	Professional Practicum	2
Sp. Ed.	420	Instruct. Dev. & Strategies P/SH	6	Sp. Ed.	450	Student Teaching	12
Sp. Ed.	425	Behavior Mgmt.	2	Sp. Ed.	430	Teaching & Learning Strategies	1
Ed.	329	Audio-visual Comm.	2				

SPECIAL EDUCATION/ELEMENTARY EDUCATION

With careful planning, students can complete programs leading to certification in both special education and elementary education, thereby becoming eligible to teach in both regular and special classrooms. The dual certification will also help students to meet the challenges of mainstreaming. For details, see the chairperson of either the Education or Special Education Departments or the Dean, School of Professional Studies.

B.S. DEGREE IN HABILITATIVE SERVICES

The recent several years have marked the beginning of a serious challenge to the century-long trend in the United States of institutionalizing handicapped persons. The original intent of the institutional movement to rehabilitate and return persons to their communities was somehow lost when these places became more custodial than rehabilitative. Some persons have spent most of their lives in the "closed community" of the institution without any opportunity for life experiences in a normalized family setting in the open community. The increased tempo of deinstitutionalizing persons to offer them more "normalized" life styles has created a need for new career professionals.

This new program of professional preparation is designed to provide competent persons who can facilitate the entire process of deinstitutionalizing handicapped persons and providing normalized community experiences for them. These professionals will be prepared to assist in the social/vocational adjustment of handicapped persons to community living, helping such persons to increase and improve their skills toward independent living. Their responsibilities will be to help persons acquire those competencies necessary for independent living.

Career professionals in habilitative services will probably encounter varied career experiences, moving from direct service and interaction with handicapped persons into program-planning, program-direction and other administrative and supervisory/consultative roles. In order to cope with such diverse responsibilities, the program of preparation offers sufficient specialized as well as generic competencies.

PROGRAM REQUIREMENTS

AREA OF SPECIALIZATION

Sp. Ed.	210	Human Exceptionalities	3	3
Sp. Ed.	215	Human Relations Skills Training	2	2
Sp. Ed.	225	Early Field Experiences	1	1
Sp. Ed.	220	Nature of Mental Retardation	3	3
Sp. Ed.	240	The Physically Handicapped	3	3
Sp. Ed.	405	Learning and Behavioral Disorders	3	3
Sp. Ed.	415	Instructional Development & Strategies MM/MH	6	6
Sp. Ed.	420	Instructional Development and Strategies for Severely/Profoundly Handicapped	6	6
Sp. Ed.	425	Behavior Management	2	2
Sp. Ed.	460	Habilitation Resources and Processes	3	3

Administrative Decision-Making Processes

(Students will select 6-9 s.h. from the following courses:)

ACTG	151	Financial Accounting	3	3
ACTG	152	Managerial Accounting	3	3
MGMT	320	Principles of Management	3	3
P.S.	375	Public Administration	3	3
Psy.	230	Introductory Statistics for Behavioral Sciences	3	3
Eng.	115	Business Writing	3	3
SCT	115	Parliamentary Procedure	1	1

Human Development, Personal Adjustment and Guidance

(Students will select 12-15 s.h. from the following courses:)

Bus Ad	240	The Legal Environment I	3	3
G S	240	Personal Finance	3	3
G S	220	Human Sexuality	3	3
Psy	225	Psychology of Adjustment	3	3
Psy	260	Developmental Psychology	3	3
Psy	354	Abnormal Psychology	3	3
Psy	456	Introduction to Psychological Testing	3	3
Psy	460	Behavior Therapy	3	3
SPA	457	Developmental Sequences in Language	3	3

Physical Development and Leisure-Time Activities

(Students will select 6-9 s.h. from the following courses:)

Art	233	Arts and Crafts	3	3
HPE	310	Adapted Physical Education	2	2
HPE	325	Camping and Outdoor Recreation	2	2
Art	231	Studio Research	3	3
Art	240	Jewelry	3	3
Art	300	Ceramics	3	3
HPE	210	Anatomy of Locomotion	3	3
HPE	410	Kinesiology	2	2

Socio-Cultural Influences

(Students will select 9-12 s.h. from the following courses:)

Ed.	223	Social Foundations of Education	3	3
Soc.	321	Sociology of Work	3	3
Soc.	351	Contemporary Social Problems	3	3
Soc.	352	The Family	3	3
Soc.	361	Deviant Behavior	3	3
Soc.	363	Urban Sociology	3	3
Soc.	380	Community Institutions	3	3
Soc.	395	Social Change	3	3
Hist.	210	The Black Experience	3	3
Social Work	311	Principles of Social Work	3	3
Social Work	312	Social Work with Groups	3	3

DEPARTMENT OF SPEECH PATHOLOGY AND AUDIOLOGY

R. Dennis Hetrick, Chairman

Professor: Hartley; *Associate Professors:* Dininny, Hetrick, Keenan, Smith; *Assistant Professor:* Simpson

This program, leading to the degree Bachelor of Science in Speech Pathology and Audiology, is designed to prepare students to function with children and adults in school and non-school settings as speech and hearing professionals. Since full professional status requires certification by the American Speech and Hearing Association, the program has been designed to provide not only entering competence but a thorough foundation for advanced study.

In addition to the undergraduate program the Department also sponsors a graduate degree program in Speech Pathology.

REQUIRED COURSES			c.h.	s.h.
Sp. Ed.	210	Human Exceptionalities	3	3
SPA	450	Speech Science I	3	3
SPA	451	Anatomy of Speech and Hearing Mechanisms	3	3
SPA	452	Speech Pathology I	3	3
SPA	453	Speech Pathology II	3	3
SPA	456	Speech Science II	3	3
SPA	457	Developmental Sequences in Language	3	3
SPA	458	Language Disorders in Children	3	3
SPA	460	Hearing Problems	3	3
SPA	463	Speech Reading and Auditory Training	3	3
SPA	468	Speech and Hearing Clinic I: Practicum	7½	3
Ed.	223	Social Foundations of Education	3	3
El. Ed.	323	Teaching of Reading	3	3
Psy.		Electives	9	9
Ed.	422	Professional Practicum Including School Law	2	2
SPA	422	Student Teaching with Speech and Hearing Handicapped	30	12

NOTE: For General Education requirements in Speech Pathology and Audiology see pages 53-54.

SPEECH PATHOLOGY AND AUDIOLOGY — SEQUENCE OF COURSES

		1ST SEMESTER		
SPA	450	Speech Science I	3	3
		2ND SEMESTER		
SPA	456	Speech Science II	3	3
		1ST or 2ND SEMESTER		
Sp. Ed.	210	Human Exceptionalities	3	3
		3RD SEMESTER		
SPA	452	Speech Pathology I	3	3
SPA	451	Anatomy of Speech and Hearing Mechanisms	3	3
		4TH SEMESTER		
SPA	457	Developmental Sequences in Language and Speech	3	3
SPA	453	Speech Pathology II	3	3
		5TH SEMESTER		
SPA	460	Hearing Problems	3	3
		6TH SEMESTER		
SPA	463	Speech Reading and Auditory Training	3	3
		5TH or 6TH SEMESTER		
SPA	468	Speech and Hearing Clinic I: Practicum	7½	3
SPA	458	Language Disorders in Children	3	3
		7TH or 8TH SEMESTER		
Ed.	422	Professional Practicum Including School Law	2	2
SPA	422	Student Teaching with Speech and Hearing Handicapped	30	12

CO-OP STUDIES

Charles E. Townsend, Ed.D., Director

Office: Wilshire House
Telephone Extension: 2298

Co-op Study is a generic term applicable to cooperative work-experience programs which blend work-experience with academic study, thus providing a unique learning experience not otherwise available to our students.

One criterion common to co-op studies at Clarion is the requirement that there be an EDUCATIONAL EXPERIENCE for which academic credit may be earned, yet flexible enough to be tailored to employer and/or student needs.

The student is expected to provide his/her employer with the maximum zeal, enthusiasm, and productivity of which he/she is capable; to learn rapidly, to develop new skills, and to augment classroom theory with work experience. The student will expect to receive experience related to his/her field of study, and will realize that a co-op job is not contrived for his/her benefit, but rather represents a job that needs doing.

Clarion faculty participate in our co-op/internship programs, by either recommending students on a one-to-one basis, and/or developing disciplines which will benefit from work-experience programs. Faculty also serve as advisors to our co-op/intern students.

COOPERATIVE EDUCATION

Cooperative Education is designed to enhance self-realization and direction by integrating classroom study with planned and supervised experience in educational, professional, and cultural learning situations outside the formal classroom environment. The joint efforts of the faculty, participating employers, and students are directed toward the achievement of an educational experience where classroom studies and appropriate work experience combine to reinforce each other. Prerequisite: junior standing, minimum QPA 2.5, or approval of the Department. Each semester, summer session.

COOPERATIVE EDUCATION (Maximum Co-op/Internship Cumulative Credits — 12 s.h.)

Credits earned in excess of 12 semester hours will be entered in the records of the student, but will not be counted as credits required for graduation.

CREDIT HOURS: Co-op/Intern programs carry 6 credits per semester. On occasion students may, via a learning contract, earn up to 6

additional credits per semester. The student must demonstrate that his/her project deserves the extra credit he/she requests.

GRADING: Earned credits will receive a **Co-op/Intern Credit-No Record*** evaluation of the student's work performance. The student, however, may petition, via a learning contract, to be given a letter grade.

NUMBERING: The numbering system below is designed for expansion to include departments as the need arises.

			Credits/Semester
Co-op	300:	A&S, Co-op Ed.	1-6
Co-op	301:	A&S, Biology	1-6
Co-op	302:	A&S, Geo. Urban Planning	1-6
Co-op	320:	BSAD, Co-op Ed.	1-6
Co-op	321:	BSAD, Accounting	1-6
Co-op	322:	BSAD, Computer	1-6
Co-op	323:	BSAD, Finance	1-6
Co-op	324:	BSAD, Management	1-6
Co-op	325:	BSAD, Marketing	1-6
Co-op	326:	BSAD, Real Estate	1-6
Co-op	327:	BSAD, Economics	1-6
Co-op	328:	BSAD, Administration	1-6
Co-op	340:	COMM, Co-op Ed.	1-6
Co-op	341:	COMM, Communications	1-6
Co-op	350:	L.S., Co-op Ed.	1-6
Co-op	351:	L.S., Library	1-6
Co-op	360:	PRO. S., Co-op Ed.	1-6
Co-op	361:	PRO. S., Elementary Education	1-6
Co-op	370:	ST. LS., Co-op Ed.	1-6
Co-op	371:	ST. LS., Student Life Services	1-6

COOPERATIVE INTERNSHIP

An Internship is characterized by: professional training sufficient to render, with minimum supervision, satisfactory service to his/her employer; and employment for only one time period (which might be less than a semester or as long as a year). Prerequisite: senior standing, minimum QPA of 2.5, or approval of the Department. Each semester, summer session.

COOPERATIVE INTERNSHIP (Maximum Co-op/Internship Cumulative Credits — 12 s.h.)

Credits earned in excess of 12 semester hours will be entered in the records of the student, but will not be counted as credits required for graduation. Students in the LEIP (Harrisburg) internship must enroll for 12 semester hours during fall or spring semesters or 9 hours during the summer and pay the normal fees. LEIP internships for fewer credits are not acceptable.

*This position does not apply to the CR-No Record regulation promulgated as a part of the Grading System. Three hundred (300) level courses imply juniors, and four hundred (400) level courses imply seniors.

			Credits/Semester
Co-op	400:	A&S, Internship	1-6
Co-op	401:	A&S, Biology	1-6
Co-op	402:	A&S, Geo. Urban Planning	1-6
Co-op	420:	BSAD, Internship	1-6
		LEIP, Harrisburg	(summer — 9) 1-6
Co-op	421:	BSAD, Accounting	1-6
Co-op	422:	BSAD, Computer	6-12
Co-op	423:	BSAD, Finance	1-6
Co-op	424	BSAD, Management	1-6
Co-op	425:	BSAD, Marketing	1-6
Co-op	426:	BSAD, Real Estate	1-6
Co-op	427:	BSAD, Economics	1-6
Co-op	428:	BSAD, Administration	1-6
Co-op	440:	COMM, Internship	1-6
Co-op	441:	COMM, Communication	1-6
Co-op	450:	L.S., Internship	1-6
Co-op	451:	L.S., Library	1-6
Co-op	460:	PRO. S., Internship	1-6
Co-op	461:	PRO. S., Elementary Education	1-6
Co-op	470:	ST. LS., Internship	1-6
Co-op	471:	ST. LS., Student Life Services	1-6

MEDIEVAL AND RENAISSANCE CULTURES CONFERENCE

Clarion State College holds membership in a consortium of Pennsylvania and Ohio colleges and universities which sponsor the Conference on Medieval and Renaissance Cultures. Its appeal is to scholars, teachers, students, and all others who have an interest in and an appreciation of the art and culture of the Middle Ages and the Renaissance. The Conference features outstanding scholars and, when possible, performing groups that specialize in the music and drama of the two periods. It is held annually in the early spring on the campus of one of the consortium institutions, the actual location rotating annually among the membership.

MILITARY SCIENCE

Office: Thorn #1
Telephone Extension: 2292

Major Ralph Italia, Captain Don McGrath, Captain Shuey Wolfe, Staff Sergeant Denny W. Barnhart, Staff Sergeant Thomas Turner.

The Military Science program provides the student an opportunity to learn and practice the art of leadership. Recognizing that there is a great difference in cognition and volition, the program has been structured to

give the student actual practical experience in leading and managing resources — training designed to prepare the student to reach the pinnacle of his or her chosen profession.

The Military Science program enables the student to learn about the military profession and the role it plays in our democratic system of government. The courses enable such knowledge to be acquired on the campus without having to serve in the military forces.

The Military Science curriculum offers students the opportunity to learn and apply management and leadership skills and to partake of such exciting and challenging activities as rappelling; self-defense; orienteering; white-water rafting; cross-country skiing; and marksmanship. Students may choose to take courses which can lead to a commission as a second lieutenant in the U.S. Army, U.S. Army Reserves, or the National Guard.

The Military Science electives enrich the student's course of study and count toward his graduation requirements. Taking these courses also opens up an additional career option to the student, enabling him or her to gain a commission and serve in the Army as an officer, or serve as an officer in the Reserves or National Guard while pursuing another chosen career.

REQUIREMENTS FOR ENROLLMENT

Enrollment in the Army Reserve Officer's Training Corps (ROTC) is open to all students, male or female, at any time during their course of studies at Clarion State College.

Enrollment in any of the freshman or sophomore Military Science courses (MS 101, 102, 203, 204, 001, 002) in no way obligates or commits the student to any military service or any further Military Science courses at Clarion State College with the privilege of withdrawing at any time.

Qualified students may continue into the Advanced Military Science Program (MS 305, 306, 407, 408) if academically qualified, and with approval of the professor of Military Science. Those students are eligible to receive a $100.00 a month subsistence allowance if they agree in writing to complete the Advanced program and accept a Commission as a second lieutenant in the U.S. Army, the Reserves, or the National Guard. Veterans and Junior ROTC graduates may receive exemptions from the Basic courses and enroll immediately in the Advanced program and receive the $100.00 a month subsistence allowance.

WHAT ROTC OFFERS

Equipment and textbooks are issued without cost to enrolled students.

Training in practical skills such as self-defense, cross country skiing, rappelling, marksmanship, orienteering, first aid techniques and water safety.

Opportunities to examine the military profession in detail. This includes the Active Army, National Guard, and Army Reserve.

Students successfully completing a specified number of Basic courses are eligible to enter the Advanced course where they are paid a subsistence allowance of $100.00 per academic month. Upon completion of the Advanced course and a six-week summer camp, the student is commissioned as a Second Lieutenant in the United States Army Reserve. Students may serve in the active Army, Army Reserves, or the National Guard.

THE MILITARY SCIENCE CURRICULUM

The Military Science Curriculum is divided into two phases: the Basic course, which includes the first and second academic years, and the Advanced course, which includes the third and fourth academic years. Students enrolled in the ROTC program may count credits in Military Science courses under the Personal Development area of the General Education distribution or as free electives toward their graduation requirements. A total of 14 hours of Military Science may be applied toward the 128 required for graduation.

Regular Basic Course

8 Semester Hours

The first four semesters of Military Science constitute the Basic course. Classes meet one hour per week and cover the history and the development of the U.S. Army, its role in the support of national objectives, and studies of topographical maps and terrain analysis. A one hour leadership lab accompanies each class stressing leadership and management skills through such vehicles as rappelling; rafting; marksmanship; orienteering; and other outdoor skills.

MS	101	World Military History	2 credits
MS	102	American Military History	2 credits
MS	203	Fundamentals of Topographic Map Interpretation and Tactical Operations	2 credits
MS	204	National Security Concepts	2 credits

Optional Basic Course

Designed for freshman and sophomore students who find their academic load too heavy to take the regular course but still desire to participate in the ROTC program. This option enables the student to enroll in only the Leadership Laboratory Class (MS 001/002) but academic credit toward graduation is not granted or when circumstances dictate, students may enroll in MS 101, 102, 203, 204 without taking a leadership laboratory and receive only one academic credit.

Advanced Course

The last four semesters constitute the Advanced course of instruction for both men and women who desire a commission as a second lieutenant in the Army of the United States, the Army Reserve, or the National Guard. This phase is composed of studies in advanced leadership and management, tactics, military law, psychological and social factors which affect human behavior, and modern instructional and training techniques. Practical application is the rule and students have the opportunity to practice and polish their skills. Participation in the Advanced Course can earn the student approximately $2,500 with a $100.00 a month subsistence pay, and pay for summer camp.

MS	305	Fundamentals of Organizational Leadership and Modern Learning/Teaching Relationship ..... 3 credits
MS	306	Study of Advanced Leadership and the Planning and Executing of Modern Tactical Operations ..... 3 credits
MS	407	Management of the Military Complex to Include Fundamentals of Military Law ..... 3 credits
MS	408	Seminar in Analysis and Management ..... 3 credits

LEADERSHIP LABORATORY

A practical experience designed for the attainment and application of leadership principles. Concurrently scheduled in conjunction with all Military Science courses, it provides for articulation of students from the basic experience and development of the individual to the application of responsibilities and professional experience in a meaningful environment.

VENANGO CAMPUS

Charles L. Blank, M.A., Administrative Head

ASSOCIATE OF SCIENCE IN BUSINESS ADMINISTRATION

OBJECTIVES

The Associate of Science program has as its principal objective the providing of an opportunity in post-secondary education not found elsewhere within the service area of Clarion State College. This program provides entry into an important field of higher education through a policy of open admissions. Students studying in this program may take general business training or specialize in accounting, or office management. If after earning the Associate Degree the student does not wish to seek employment, he/she may transfer into Clarion's baccalaureate program without loss of credit.

ACADEMIC REQUIREMENT

The program is divided into three blocks of required courses. Half of the program is aimed at developing the general educational level of the student's abilities related to the working and living in the business environment. The remaining courses are in the field of business and provide the basic and specialized knowledge needed for entry into the business world.

GENERAL EDUCATION:

			cr
Eng.	111	English Composition	3
SCT	113	Fundamentals of Speech	3
Psy.	211	General Psychology	3
Soc.	211	Prin. of Sociology	3
Econ.	211	Principles of Econ I	3
HPE	111	Health Education	2
Electives in Science or Humanities			6
			23

BUSINESS CORE:

The following business courses are required of all students regardless of their area of specialization.

MGMT	120	Introduction to Business	3
Math.	131, 132	Math for Business and Economics I and II	6
BCIS	200	Computer Info. Processing	3
ACTG	151, 152	Financial and Managerial Accounting	6

BSAD	240	Legal Environment I	3
Eng.	206	Business Writing	3
Econ.	221	Economic and Business Statistics I	3
			27

BUSINESS ELECTIVES:

Each student will choose an area of specialization. Three areas are available. Requirements are listed below for each area.

ACCOUNTING

ACTG	153	Factory Accounting	3
ACTG	154	Accounting Systems	3
ACTG	251	Intermediate Accounting	3
ACTG	253	Federal Taxes	3
Business Elective			3
			15

GENERAL BUSINESS MANAGEMENT

MGMT	121	Fundamentals of Management	3
OFMT	221	Office Management	3
BSAD	228	Human Behavior in Organiz.	3
OFMT	227	Applied Supervision	3
Business Elective			3
			15

OFFICE MANAGEMENT

OFMT	132*	Production Typing	3
OFMT	136*	Executive Shorthand	3
MGMT	121	Fundamentals of Management	3
OFMT	221	Office Management	3
OFMT	230	Office Procedures	3
Business Elective			3
			18

VENANGO CAMPUS

ASSOCIATE DEGREE NURSING PROGRAM

The Associate Degree Nursing Program is designed to prepare technically competent nurses able to give client-centered care in first-level positions in hospitals or other health agencies and to work effectively with other members of the health team. Upon completion of the program, the graduate will be eligible to take the state licensure examination.

*OFMT 132 and 136 require a proficiency level equal to two years of high school typing and shorthand. OFMT 131 and 135 are required for students who do not have this proficiency.

PHILOSOPHY

The philosophy of the Clarion State College Nursing Department is consistent with the philosophy of Clarion State College in seeking as its primary goal the provision of educational experiences to promote scientific inquiry, creative thinking, critical judgment, and self-evaluation. The students' nursing education is complemented by such curriculum offerings as humanities, natural sciences, behavioral sciences, and free electives. The program is based on the concept of continued self-development so that graduates will aspire to improve and expand their competencies on a continuing basis after graduation.

Nursing is a humanistic science concerned with the care of individuals who desire assistance with health maintenance during their life processes. It is a therapeutic process involving the mutual interaction of the nurse, client, and family collaborating for the achievement of maximum health potential. The nursing process is used in the sharing of health goals, pertinent knowledge, and available resources for the purpose of promoting the well-being of the client.

The Nursing Faculty believe that man is a unified whole and relates with his environment by meeting his basic needs according to their priority. Man, as a sensing, thinking being like no other, assumes total responsibility for his unique behavior. His support system is made up of significant persons within his framework of life. How he interrelates with these persons reflects his past experiences, present endeavors, and future goals.

Health, as defined by the client, must be the primary focus of nursing care. It is a dynamic, ever-changing state based on man's relationship with stress. A client's concept of health is derived from patterns he has formulated, based on age, sex, cultural experiences, economic factors, etc. We believe that man is an expert on himself; responsible for his own health care to achieve a state of well-being. As such, he must be consulted concerning his own health goals and become an active participant in determining his health care.

Learning is a self-directed activity involving a personal commitment by the learner, and is enhanced by an educational climate which promotes creativity, exploration, and freedom for discovery. Since the faculty believes that learning takes place within the learner, emphasis should be on self-understanding and self-evaluation. Thus, learning is meaningful only when it is evaluated by the learner as relevant and satisfying to his self.

The learner is characteristically a sensing, thinking unity who is responsible and goal-directed. He responds to the learning process according to those individual differences that make him unique. The learner's educational behavior is greatly influenced not only by past, present, and expected future experiences, but also by his motivation, desire, and effort to learn. The problem-solving process is used by the

learner in developing educational goals and establishing methods of learning.

Society, as viewed by the faculty, is a dynamic organization of increasing complexity and mixed lifestyles. The family, which is one segment of society, plays a very important role in the health of the client. How the client relates with his family and society will determine his concepts of self and his well-being.

OBJECTIVES

Clarion State College Associate Degree Nursing Program prepares the graduate to:

1. Provide safe technical nursing care.
2. Utilize the nursing process in assisting clients and families with health goals.
3. Establish effective interpersonal relationships.
4. Accept responsibility for continuing professional growth.
5. Collaborate with the health team in assisting clients and families with health goals.

Upon completion of the Nursing Program, the graduate:

1. Supports the wholeness of man and his freedom of choice.
2. Demonstrates nursing intervention based on stress, the wholeness of man, and his state of well-being.
3. Uses problem solving process in determining alternatives with client and family.
4. Demonstrates appropriate communication skills with client and family.
5. Uses the nursing process in assisting the client and his family with activities of daily living.
6. Works with the health team in assisting the client with his health care.
7. Demonstrates proficiency in those technical skills necessary to carry out the prescribed nursing care plan and medical diagnosis.
8. Demonstrates appropriate nursing judgments in establishing priority of needs and evolving needs and evolving health goals.
9. Demonstrates self-direction.
10. Assumes responsibility for decisions.
11. Demonstrates self-evaluation.

THE CURRICULUM IN THE FIELD OF NURSING

The associate degree nursing program is expected to be completed in two academic years. The curriculum outline for the nursing program is as follows:

			Clock Hours Lec.	Lab.	Cr.
		FIRST SEMESTER			
Eng.	111	Composition	3	0	3
Biol.	258	Anatomy & Physiology I	2	3	3
Psy.	211	General Psychology	3	0	3
Nurs.	101	Fundamentals of Nursing	4	12	8
			12	15	17
		SECOND SEMESTER			
Biol.	259	Anatomy & Physiology II	2	3	3
Psy.	322	Developmental Psy	3	0	3
		Elective	3	0	3
Nurs.	102	Parental and Child Health Nursing	2	6	4
Nurs.	103	Intro. to the Nursing Process	2	6	4
			12	15	17
		THIRD SEMESTER			
SCT	113	Fundamentals of Speech	3	0	3
Biol.	260	Microbiology	2	3	3
Soc.	211	Principles of Sociology	3	0	3
Nurs.	201	Nursing Process I	4	12	8
			12	15	17
		FOURTH SEMESTER			
Eng	200	Composition & Literature	3	0	3
Hum		Elective	3	0	3
Nurs.	202	Nursing Process II	4	12	8
Nurs.	203	Nursing Seminar	2	0	2
			12	12	16

TOTAL CREDITS 67

VENANGO CAMPUS

Certification Program In Habilitative Services

This certification program has been submitted to the Pennsylvania Department of Education for approval as an associate degree program. This program is designed to provide training to persons desiring to work in paraprofessional roles with exceptional citizens. The emphasis is on the blanket concept of "normalization" and related topics such as deinstitutionalization, mainstreaming, etc. Persons completing this program will be prepared to assist in the social-vocational adjustment of handicapped persons to community living.

Since paraprofessional roles in habilitative services will vary, the program of preparation offers both specialized and generic competencies. The person completing this program may opt for further education since this program meshes with the four year programs in Special Education and Habilitative Services at the Main Campus.

GENERAL EDUCATION

			Cr.
Eng.	111	English Composition	3
SCT	113	Fundamentals of Speech	3
Psy.	211	General Psychology	3
Psy.	225	Psychology of Adjustment	3
Psy.	260	Developmental Psychology	3
Psy.	322	Educational Psychology	3
Soc.	211	Principles of Sociology	3
HPE	310	Adapted Physical Education	3
Electives:		Humanities or Natural Science	9
		General or free elective	3

SPECIAL EDUCATION

Sp. Ed.	210	Human Exceptionalities	3
Sp. Ed.	215	Human Relations Skills Training	2
Sp. Ed.	220	Nature of Mental Retardation	3
Sp. Ed.	225	Early Field Experience	1
Sp. Ed.	230	Behavior Disorders	2
Sp. Ed.	235	Learning Disorders	2
Sp. Ed.	240	The Physically Handicapped	3
Sp. Ed.	245	Behavior Management	2
Sp. Ed.	250	The Helping Relationship: Principles and Procedures	3
Sp. Ed.	295	Field Experience	6

SUGGESTED FOUR-SEMESTER SEQUENCE

First Semester

Eng.	111	English Composition	3
SCT	113	Fundamentals of Speech	3
Sp. Ed.	210	Human Exceptionalities	3
Sp. Ed.	215	Human Relations Skills Training	2
Psy.	211	General Psychology	3
			14

Second Semester

Psy.	225	Psychology of Adjustment	3
Psy	260	Developmental Psychology	3
Sp. Ed.	220	Nature of the Mentally Retarded	3
Sp. Ed.	225	Early Field Experience	1
Sp. Ed.	230	Behavior Disorders	2
Sp. Ed.	235	Learning Disorders	2
Elective — Humanities or Natural Sciences			3
			17

Third Semester

Sp. Ed.	240	The Physically Handicapped	3
Soc.	211	Principles of Sociology	3
Psy.	322	Educational Psychology	3
Sp. Ed.	245	Behavior Management	2
Electives — Humanities or Natural Sciences			6
			17

Fourth Semester

Sp. Ed.	250	The Helping Relationship: Prin. & Proc.	3
Sp. Ed.	295	Field Experience	6
HPE	310	Adapted Physical Education	2
Elective — General Elective			3
			14

VENANGO CAMPUS
GENERAL COURSE OFFERINGS

NOTE: Certain courses listed under general education below are also applicable to major fields. Students should consult the college catalog and their advisors to determine which courses should be taken for specific majors.

			Credits
I. MODES OF COMMUNICATION			13
Eng.	111	English Composition	3
Math.	111	Basic Elementary Math (or)	3
Math.	112	Excursions in Math	3
SCT	113	Fundamentals of Speech	3
II. HUMANITIES			12
Art	111	The Visual Arts	3
Art	231	Studio Research	3
Art	236	Color & Design	3
Eng.	170	The Literary Experience	3
Eng.	209	Special Topics in Lit.	3
Eng.	291	Short Fiction	3
Fr.	151	Elem. French I	4
Fr.	152	Elem. French II	4
SCT	120	Theater Play Production	3
Fr.	251	Interm French III	3
Fr.	252	Interm French IV	3
Span.	151	Elem. Spanish I	4
Span.	152	Elem. Spanish II	4
Span.	251	Interm Spanish III	3
Span.	252	Interm. Spanish IV	3
SCT	251	Voice & Diction	3
SCT	253	Intro. to Theater	3
Mus.	111	Intro. to Music	3
III. SOCIAL SCIENCES			12
Econ.	211	Prin. of Economics I	3
Econ.	212	Prin. of Economics II	3
Econ.	221	Econ. & Business Statistics I	3
Hist.	111	Anc. & Medieval Civilization	3
Hist.	112	Modern Civilization	3
Hist.	213	History of U.S.	3
Hist.	235	Topics in Intellectual European History	3
Hist.	225	Topics in American Social History	3
Hist.	354	Contemporary American History	3
Psy.	211	General Psychology	3
Psy.	215	Psychology of Adjustment	3
Psy.	331	Child Psychology	3
Psy.	260	Developmental Psychology	3
Psy.	228	Human Behavior in Organiz.	3
Geog.	254	Consv. of Natural Resources	3
Geog.	257	Geography of U. S. & Canada	3
Soc.	211	Principles of Sociology	3
P.S.	211	American Government	3
IV. NATURAL SCIENCE/MATHEMATICS			12
Biol.	111	Basic Biology	4
Biol.	153	Introduction to Animal Biology	4
Biol.	154	Introduction to Plant Biology	4
Biol.	201	Genetics (Summer Only)	3
Biol.	202	Environmental Biology (Summer Only)	3
Biol.	258	Anatomy & Physiology I	3
Biol.	259	Anatomy & Physiology II	3
Biol.	260	Microbiology	3
Chem.	153	General Chemistry I	3
Chem.	163	General Chemistry Lab I	1
Chem.	154	General Chemistry II	3
Chem.	164	General Chemistry Lab II	1
Math.	100	Practical Math	3
Math.	131	Math. for Bus. & Econ. I	3
Math.	132	Math. for Bus. & Econ. II	3

Math.	171	Precalculus	4
Math.	172	Calculus w/Anal. Geom. I	4
Math.	271	Calculus w/Anal. Geom II	4
Math.	272	Calculus w/Anal. Geom. III	4
Math.	221	Applied Statistics	3
E.S.	111	Basic Earth Science	3
E.S.	252	Physical Geology	3
Ph. Sci.	111	Basic Physical Science I (Chemistry)	3

V. ELECTIVES FOR GENERAL EDUCATION

Eng.	110	Basic Composition Skills	3
Eng.	200	Composition and Literature	3
Eng.	206	Business Writing	3
HPE	111	Health	2
HPE	147	Tennis	1
HPE	153	Volleyball (Men's Rules)	1

BUSINESS EDUCATION SUBJECTS

ACTG	151	Financial Accounting	3
ACTG	152	Managerial Accounting	3
ACTG	153	Factory Accounting	3
ACTG	154	Accounting Systems	3
ACTG	250	Intermediate Accounting	3
ACTG	253	Federal Taxes	3
BCIS	200	Computer Information Processing	3
BSAD	228	Human Behavior in Organizations	3
BSAD	240	Legal Environment I	3
BSAD	241	Legal Environment II	3
MGMT	120	Introduction to Business	3
MGMT	121	Fundamentals of Management	3
MGMT	227	Applied Supervision	3
OFMT	131	College Typing	2
OFMT	132	Production Typing	3
OFMT	135	College Shorthand	3
OFMT	136	Executive Shorthand	3
OFMT	221	Office Management	3
OFMT	230	Office Procedures	3

SPECIAL EDUCATION SUBJECTS

Sp. Ed.	210	Human Exceptionalities	3
Sp. Ed.	215	Human Relations in Skills Training	2
Sp. Ed.	220	Nature of Mental Retardation	3
Sp. Ed.	225	Early Field Experiences	1
Sp. Ed.	230	Behavior Disorders	2
Sp. Ed.	235	Learning Disorders	2
Sp. Ed.	240	The Physically Handicapped	3
Sp. Ed.	245	Behavior Management	2
Sp. Ed.	250	The Helping Relationship: Prin. & Procedures	3
Sp. Ed.	295	Field Experiences	6

PROFESSIONAL EDUCATION COURSES

Ed	323	Social Foundations of Education	3
Ed	329	Audio-Visual Education	2
Psych.	322	Educational Psychology	3
S E.	211	Safety Education	3
HPE	310	Adapted Physical Education	2

COURSE DESCRIPTIONS

Academic calendar sequence in which course is offered follows each course description. The designated sequence is probable rather than guaranteed, and is subject to change.

Each semester = annually
Fall = first semester
Spring = second semester
On demand = course offered if potential enrollment warrants.

ANTHROPOLOGY

ANTH. 211: ANTHROPOLOGY 3 s.h.

This course deals with the origin, diversification, and evolution of man's way of life (cultures) from extinct primitive systems to modern industrial civilizations. This course is an introduction to anthropology (the study of man) with emphasis on the nature and concept of culture. Some work is done in physical anthropology. Emphasis is placed on the simple and complex cultures of the world with specific readings in each category. Each semester.

ANTH. 213: INTRODUCTION TO BIOANTHROPOLOGY 3 s.h.

A survey study of the human species in time, place, and culture and the investigation of the factors underlying human variation. Every second year.

ANTH. 214: PRINCIPLES OF HUMAN ECOLOGY 3 s.h.

A study of the functional inter-relationships of man and his biophysical environment. On demand.

ANTH. 250: PREHISTORIC NORTH AMERICA 3 s.h.

The course examines the development of North American Indian cultures from the beginning of human migration to the late Pleistocene to the coming of Europeans. Emphasis will be on man's interrelationship with the various New World environments in time and space which led to the rise of prehistoric cultures, food production, trade, etc. No prerequisites. On demand.

ANTH. 251: HISTORIC INDIANS OF NORTH AMERICA 3 s.h.

This course is an ethnographic survey of American Indians. Cultural processes, historic events, and ecological adjustments are explored in order to understand the diversity of Indian culture at the time of their discovery by Europeans. American Indian acculturation and contemporary Indian issues are also considered. On demand.

ANTH. 353: ARCHAEOLOGY OF EASTERN NORTH AMERICA 3 s.h.

The course provides a detailed survey of prehistoric developments in North America east of the Mississippi from Late Pleistocene to the Colonial Period. The principal aim is to familiarize students with the prehistory of the Amerind populations in the area, including the gradual emergence of the Woodland pattern. Each summer.

ANTH. 354: CULTURAL HISTORY OF AFRICA AND ASIA 3 s.h.

A survey of major cultural trends in Old World cultures exclusive of Europe. Beginning with prehistoric Middle East, the spread of food production and its consequences is traced through space and time. Special emphasis is given to the rise and development of Asian cultural patterns. The second selection of the course deals with African tribal cultures and their history. On demand.

ANTH. 356: FIELD ARCHAEOLOGY 4 s.h.

This course will give undergraduate students an opportunity to participate actively in all phases of archaeology field investigation of a limited section of the Allegheny river drainage in order to determine cultural sequence, settlement patterns, population density, economy, cultural influences, technologies, and human ecology. Procedures will include reconnaissance, testing of suspected sites, site survey, controlled excavation, site mapping, interpretation and recovery of specimens, and a final site report. Each summer.

ANTH. 357: INDIANS OF SOUTH AND CENTRAL AMERICA 3 s.h.

A survey of Indian cultures from the beginnings in the Late Pleistocene to the coming of the Conquistadores; special emphasis is placed upon culture developments, the rise of states, native agriculture, and the development of arts and crafts, including architecture and ceremonial art. No prerequisite. On demand.

ANTH. 358: WORLD PREHISTORY 3 s.h.

This course covers the cultural development of Man from the Lower Paleolithic to the beginnings of urbanism in the Bronze and Iron Age. The course examines man's development in Europe, Africa, Asia, and the New World; draws comparisons between cultures; studies the diffusion of cultural traits; and summarizes recent developments in research. No prerequisite. On demand.

ANTH. 359: PRIMITIVE SCIENCE AND TECHNOLOGY 3 s.h.

This course is designed to provide a better understanding of Man's relationship with the utilization of environment. It traces the development which ultimately leads to the rise of technological societies. In investigating Man's attempts to come to an understanding of the forces around him, the course provides a survey of the history of scientific thought. On demand.

ANTH. 360: INTRODUCTION TO FOLKLORE 3 s.h.

The course covers the main aspects of oral traditions such as folktale, legend, myth, riddle, folksong, etc., and analyzes the relationship of oral traditions to literature. The systematic study of folklore, its methods, research approaches, and related subjects are investigated. No prerequisite. On demand.

ANTH. 361: WITCHCRAFT, MAGIC, AND RELIGION 3 s.h.

This course is a cross cultural comparative analysis of man's involvement with the supernatural. The role of religion in society is explored and theories dealing with the nature and function of various aspects of supernaturalism are discussed from an anthropological perspective. No prerequisite. On demand.

ANTH. 362: HISTORY AND METHODS OF ANTHROPOLOGY 3 s.h.

This course provides a general overview of the history of anthropology as an academic discipline, combined with a survey of anthropological theory and research methods. On demand.

ANTH. 363: HISTORICAL ARCHAEOLOGY 3 s.h.

Designed to provide an introduction to the problems and methods of historical archaeology with special emphasis on North America. To be taken in conjunction with Anth. 356 (Field Archaeology) as an alternative to Anth. 353 (Archaeology of Eastern North America).

ANTH. 400: INDIVIDUAL RESEARCH 2 s.h.

Individual research, designed as an advanced course in anthropology, provides for the student's individual approach to a specific problem, defined in conference with the instructor.

Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques in dealing with their topics. All branches of anthropology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and the departmental chairman. Prerequisite: Anth. 211. On demand.

ANTH. 401: INDIVIDUAL RESEARCH: ARCHAEOLOGY 2 s.h.

Individual research, designed as an advanced course in archaeology, provides for the student's individual approach to a specific problem, defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques in dealing with their topics. All branches of archaeology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and the departmental chairman. Prerequisite: Anth. 211, 356. On demand.

ANTH. 402: INDIVIDUAL RESEARCH: BIOANTHROPOLOGY 2 s.h.

Individual research, designed as an advanced course in bioanthropology, provides for the student's individual approach to a specific problem, defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques in dealing with their topics. All branches of bioanthropology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and the departmental chairman. Prerequisite: Anth. 211, 213, 356, or the consent of instructor. On demand.

SUMMER ARCHAEOLOGICAL FIELD SCHOOL 9 s.h.

An integrated program especially designed to provide undergraduates with a practical and theoretical background in modern archaeological research. The program combines three weeks of classroom and laboratory work with five weeks of field research, including excavations. All participants must register for Anth. 353 (Archaeology of Eastern North America) or Anth. 363 (Historical Archaeology), Anth. 356 (Field Archaeology), and Anth. 401 (Individual Research). Students with previous formal field training may register for Anth. 401 only.

ART

ART 111: THE VISUAL ARTS 3 s.h.

This is an introductory art course which deals with form and content as well as the processes and products of art. It is intended to enrich and deepen the student's awareness and understanding of visual art forms. Each semester.

ART 112: HISTORY OF ART I 3 s.h.

The study of the art forms of various cultures beginning with the Paleolithic Period and ending with the Renaissance. No prerequisite. Fall, annually.

ART 113: HISTORY OF ART II 3 s.h.

The study of the art forms of various cultures beginning with the Renaissance and ending with contemporary movements. No prerequisite. Spring, annually.

ART 222: ART IN THE ELEMENTARY GRADES 3 s.h.

The place of art and creative activity in the Elementary Public School curriculum is studied. Concern and information centers around the value of creativity, the art activity as an

important part of the total learning of the child, the importance of self-expression, and the development of the child at different age levels. Classroom planning, presentation, motivation methods, and lesson plans are developed in workshops or actual teaching situations. Each semester.

ART 231: STUDIO RESEARCH IN ART MEDIA 3 s.h.

A basic course for Elementary majors designed to familiarize and develop sensitivity and insight into media and art processes. The student explores shape, line, surfaces, value, color differences, through the basic design problems. Various projects explore the characteristics of chalk, crayon, water color, tempera, clay, print media, papier mache, and sculptural material. Two and three dimensional work problems in all media are studied. Each semester.

ART 232: PAINTING I 3 s.h.

The primary aim of this course is to develop fundamental skills and expression in oil, watercolor, casein, acrylics, and related two dimension media. Emphasis is placed on design and color problems related to painting. Fall, annually.

ART 233: ARTS AND CRAFTS 3 s.h.

This is an enrichment course to give a basic experience with crafts to any college student. Developing basic skills, techniques, and processes with a variety of craft materials will provide the student with sufficient knowledge to pursue projects on his own. Fiber manipulations of knotting and weaving techniques, stitching, applique, printing, enameling, bookbinding, and batik are only a few possible areas to explore. Each semester.

ART 234: ELEMENTARY ART WORKSHOP 3 s.h

A workshop designed to meet the needs of teachers in service. Emphasis is placed on materials, processes, and equipment used in today's elementary art program. Summer, annually.

ART 235: PRACTICAL PROBLEMS IN ART EDUCATION 3 s.h.

Practical problems in art education may be and usually are varied in nature. Some students require more information regarding methods of teaching and others feel that more art techniques are desirable. Whatever the students regard as problems are considered the objectives of the course and are studied to the point where students' needs are considered satisfied. Each semester.

ART 236: COLOR AND DESIGN 3 s.h.

A study of the elements and principles of two dimensional forms in design. Creative processes are stressed. Required of all art majors under the Humanities program. Each semester.

ART 237: DRAWING AND COMPOSITION I 3 s.h.

Problems in basic drawing and emphasis on technique and compositional approaches in various media. Drawing of objects, perspective and other fundamental problems are a vital part of this course. Inventive interpretations and application of creative approaches are also stressed. Required of all art majors under the Humanities program. Fall, annually.

ART 238: DRAWING AND COMPOSITION II 3 s.h.

Drawing problems that explore the human figure as an art form will be presented, using varied media. The relationships between personal, creative drawings, and composition as they relate to the figure will be emphasized. Spring, annually.

ART 239: THREE DIMENSIONAL DESIGN 3 s.h.

The exploration of three dimensional design forms to gain a deeper understanding of the elements and principles of design. Each semester.

ART 240: JEWELRY 3 s h.

Design and construction of individual pieces of jewelry from sterling silver, semi-precious stones, exotic woods, and other materials The course deals with soldering techniques, casting techniques, methods of setting stones, chain construction, and all methods known for fabricating jewelry for human adornment Each smester

ART 241: ADVANCED JEWELRY 3 s h.

A continuation of study in the design and construction of jewelry pieces. The student continues his learning and advancing his skills and knowledge of metals, stones, woods, and other materials Prerequisite Art 240 Each semester

ART 300 CERAMICS 3 s h

Design and construction of clay pieces in varied techniques and approaches. Basic clay and glaze technology, hand building, throwing turning, and firing processes Not open to seniors. Each semester

ART 301 ADVANCED CERAMICS 3 s h

Students in Advanced Ceramics work with the technical aspects of ceramics — glaze formulation, glaze calculation, experiment with natural local clays and desired clay bodies, decorating methods, glazing, firing techniques — and pursue individual interests The student works on an independent level investigating desired interests leading to a final individual critique of work accomplished Prerequisite Art 300 Ceramics Each semester

ART 311 GRAPHIC MEDIA AND TECHNIQUES 3 s h

Broad experiences in a wide range of media and processes of graphic expression Both old and new approaches in lino-cuts, wood block, etching dry point, lithography serigraphy, and exploration with new techniques. Each semester

ART 312: SUPERVISED STUDY IN ART 1 6 s h

Opportunity to explore in depth an area of art according to need or interest Regular weekly sessions with a faculty member in charge to evaluate the progress of the work and chart its direction. Credit and grades will be given only if a scholarly paper or special projects have been completed to the satisfaction of the faculty advisor Prerequisite Permission of instructor and department chairman Each semester

ART 313: CRAFTS IN THE ELEMENTARY SCHOOLS 3 s h

Experimenting with traditional and contemporary materials processes, and techniques provide the classroom teacher with basic skills to adapt craft experiences to particular age levels. Weaving, stitchery, puppetry, ceramics, jewelry making printmaking carving are some areas to be studied On demand

ART 314 ARTS AND CRAFTS IN ENVIRONMENTAL EDUCATION 3 s h

Experience with traditional and contemporary processes and techniques, using nature motifs, to provide the classroom teacher with the basic skills to adapt outdoor crafts experiences to particular age levels On demand

ART 315: PAINTING II 3 s h

An advanced course in use of basic, traditional painting media and experimental two-dimensional media Oil, watercolor casein, acrylics, collage, and other mixed media work Students are encouraged to develop compositions directly from nature, imagination and memory Spring annually

ART 316: SCULPTURE I 3 s h

This course emphasizes the aesthetic, structural, and technical principles of three-dimensional form while stressing cast sculpture as a means of artistic expression The student

will experience direct control of clay, wax, plastic, wood, and mixed media while carrying out the various stages of casting in bronze, lead, and aluminum. Each semester.

ART 317: SCULPTURE II 3 s.h.

Applying principles of three dimensional design the student will carry out the various stages of the "lost wax" process leading to the casting of a sculptural idea in bronze and/or aluminum. Instruction in welding technique is explored in relation to sculptural form. Each semester.

ART 364: SCENE PAINTING 3 s.h.

Studio instruction in the use of brushwork and pigments to develop landscape, ornament, paneling, and architectural detail in stage scenery based on the analysis of form and source of light. Fall, odd numbered years.

BIOLOGY

BIOL. 111 BASIC BIOLOGICAL SCIENCE 4 s.h.

This course deals with the principles of biology. Topics include cellular structure and physiology, growth and repair, reproduction and development, control, sources of food energy, inheritance, and man's interrelationship with his biological environment. The classification of plants and animals is reviewed briefly. Credit not to be applied toward Biology major. Each semester.

BIOL. 153: INTRODUCTORY ANIMAL BIOLOGY 4 s.h.

A survey of the animal kingdom, emphasizing structural, physiological, and evolutionary relationships. The laboratory exercises reflect this approach; dissections and other laboratory procedures are also introduced. Three lecture and three laboratory hours weekly. Each semester.

BIOL. 154 INTRODUCTORY PLANT BIOLOGY 4 s.h.

Complementary to Biol. 153. A phylogenetic approach to the study of the plant kingdom, with emphasis on the evolution of plants, life cycles, reproductive patterns, physiology, morphology, and genetics. Two hours lecture and four hours laboratory weekly. Each semester.

BIOL. 201: GENETICS 3 s.h.

A study of the principles of inheritance in plants, animals, and microorganisms. Topics considered include: Mendelian genetics, modern genetics, the chemical basis of heredity, linkage, recombination, evolution, population genetics, and human genetics. Three lectures and two laboratory hours weekly. Prerequisite: Biol. 153 and 154 or consent of the instructor. Each semester.

BIOL. 202: ENVIRONMENTAL BIOLOGY 3 s.h.

Interaction of organisms and their biotic and abiotic environment; population dynamics and interactions; the reality of communities; energy transfer with an ecological system; components of the ecosystem. Two lectures and three laboratory hours weekly. One all-day Saturday field trip. Prerequisites: Biol. 153 and 154 or equivalent or consent of the instructor. Each semester.

BIOL. 203: CELL BIOLOGY 3 s.h.

Structure and function of plant and animal cells. Two lectures and three laboratory hours weekly. Prerequisites: Biol. 153, 154 and Chem. 153, 154, 163, 164 and 254 or their equivalents or consent of the instructor. Each semester.

BIOL. 258: ANATOMY AND PHYSIOLOGY I 3 s.h.

A study of the normal structure of the human body and how it functions. Special attention is given to the integumentary, skeletal, muscular, nervous, and endocrine systems and their interrelationships. Two lectures and three lab hours weekly. Fall, annually Venango Campus. Not for Biology majors.

BIOL. 259. ANATOMY AND PHYSIOLOGY II 3 s.h.

A continuation of Biol. 258, Anatomy and Physiology I. This course includes the circulatory, respiratory, digestive, urinary, and reproductive systems and their interrelationships. Two lectures and three laboratory hours weekly. Prerequisite: Biol. 258. Spring, annually. Venango Campus. Not for Biology majors.

BIOL. 260: MICROBIOLOGY 3 s.h.

A study of microorganisms including viruses, bacteria, fungi, and protozoa, with emphasis on those associated with human health and disease. Consideration is given to immunity and resistance to infectious diseases and to their epidemiological and public health aspects. Laboratory emphasis is on pathogenic bacteria and the bacteriological and microscopic techniques. Two lectures and three laboratory hours weekly. Fall, annually. Venango Campus. Not for Biology majors.

BIOL. 341: GENERAL MICROBIOLOGY 4 s.h.

A study of microorganisms including viruses, fungi, and bacteria. Culturing, isolation, classification, and ecology of microscopic life from air, water, soil, and dairy products including beneficial and pathogenic forms. Two lectures and six laboratory hours weekly Prerequisites: Biol. 203 and Chem. 154. Each semester.

BIOL. 351: FIELD BOTANY 3 s.h.

Collection and preparation of plants using herbarium methods. Emphasis on identification of flowering plants in a variety of habitats. Prerequisites: Biol. 153 and 154. Summer, even numbered years.

BIOL. 352: TAXONOMY OF VASCULAR PLANTS 3 s.h.

Systems of classification; collection and identification of flowering plants and ferns of the region; use of keys and herbarium collections. Prerequisites: Biol. 153 and 154. Spring, even numbered years.

BIOL. 353: ORNITHOLOGY 3 s.h.

An introduction to the biology of birds. Lectures deal with internal and external adaptation for aerial travel, classification, migration, habitats, plumage changes, nesting habits, and ecologic relations. Two lectures and three laboratory or field trip hours weekly. Spring, annually.

BIOL. 354: ENTOMOLOGY 3 s.h.

A general study of insects including structure, physiology, classification, economic importance, and relationships. Two lectures and three hours of laboratory or field work weekly. Fall, even-numbered years.

BIOL. 356: FIELD ZOOLOGY — INVERTEBRATE 3 s.h.

A study of invertebrates in the field including the collecting and preserving of such forms. Emphasis will be placed on taxonomy and ecological relationships. Summers, odd-numbered years.

BIOL. 357: FIELD ZOOLOGY — VERTEBRATE 3 s.h.

A study of the taxonomy and ecological importance of the vertebrates. Field trips will be taken to various ecological areas to observe and collect. Emphasis will be placed on the

identification of living rather than preserved specimens. If Biol. 420 has been taken, permission of instructors of both courses must be secured to elect Biol. 357. Summer, even-numbered years.

BIOL. 360: PROBLEMS IN BIOLOGY 1-4 s.h.

Acquaints the student with skills and techniques used in research. The student identifies a problem for investigation and completes all phases of its study including the writing of a research report. Approval must be secured prior to preregistration from the staff member who will direct the student.

BIOL. 400: SPECIAL TOPICS 1-6 s.h.

Advanced topics in various areas of biology. The format used will be selected by the professor as most suitable to the study. The course may be offered on request of students, subject to the availability of staff. Enrollment by consent of the instructor. On demand.

BIOL. 401: RADIATION BIOLOGY 3 s.h.

A course presenting the fundamental aspects of the science of radiology with emphasis on biological applications. The topics studied are physical and genetic effects of radiation on plants and animals; radioactive fall-out and its biological consequences; applications of radioisotopes in biological research; and use of radiation sources and detectors. Prerequisite: One year of chemistry. Spring, annually.

BIOL. 420: VERTEBRATE BIOLOGY AND SYSTEMATICS 3 s.h.

A study of the various aspects of classification, evolutionary relationships, zoogeography, ethology, ecology, and physiology of vertebrates, with special reference to those from Pennsylvania. If Biol. 357 has been taken, permission of instructors of both courses must be secured to elect Biol. 420. Prerequisites: Biol. 153 and Biol. 202, or permission of the instructor. Fall, even-numbered years.

BIOL. 424: FRESHWATER ICHTHYOLOGY 1 s.h.

A survey of some common families of freshwater fishes of North America, including taxonomy and identification. Two clock hours weekly. Prerequisite: Biol. 202. Fall, annually.

BIOL. 425 FISHERIES BIOLOGY 3 s.h.

Ecology of fish populations; includes identification, age and growth, population estimation and analysis, food habits, management, and environmental requirements. Five clock hours weekly, including laboratory. Prerequisite: Environmental Biology or consent of the instructor. Fall, annually.

BIOL. 442: MICROBIAL PHYSIOLOGY 4 s.h.

A study of the physiological reactions involved in the growth, reproduction, and death of microbes. Emphasis will be placed upon the metabolism of carbohydrates, proteins, vitamins, and fats. Enzymes, oxidation-reduction potentials, energy relationships, membrane potentials, and nutrients will be considered. Two lectures and four laboratory periods weekly. Prerequisites: Biol. 341 and Chem. 453 or permission of the instructor. Spring, annually.

BIOL. 443: VIROLOGY 3 s.h.

A study of plant, animal, and bacterial viruses with emphasis on biochemistry, structure, life cycles, and disease-causing mechanisms. Prerequisites: Chem. 453, Biol. 341 or consent of the instructor. Spring, annually.

BIOL. 444: IMMUNOLOGY 4 s.h.

An introduction to the fundamental concepts of immunology, immunochemistry, serology, and the role of immunology in epidemiologic studies. Three lectures and three laboratory periods weekly. Prerequisites: Biol. 341 or permission. Spring, annually.

BIOL. 446: PATHOGENIC MICROBIOLOGY 4 s.h.

A study of the bacteria, fungi, and viruses which cause human disease. Laboratory emphasis is on isolation and identification of pathogens and on elementary immunology. Two lectures and four laboratory hours weekly. Prerequisite: Biol. 341. Fall, annually.

BIOL. 451: ANIMAL PHYSIOLOGY 3 s.h.

Study of the comparative physiology of animals. Includes water and ion regulation, circulation, respiration, nutrition, nervous activity, endocrine functions, and responses to temperature, light, gases, and pressure. Two lectures and three hours laboratory weekly. Prerequisite: Biol. 203. Fall, annually.

BIOL. 452: PLANT PHYSIOLOGY 3 s.h.

Life processes and responses of plants to the environment. Synthesis, digestion, and assimilation of foods, mineral nutrition, absorption, translocation. Two lectures and three hours laboratory weekly. Prerequisite: Biol. 203. Spring, odd-numbered years.

BIOL. 460: COMPARATIVE VERTEBRATE MORPHOLOGY 3 s.h.

The course traces the most important trends in the evolution of basic structures in vertebrate lines, and conveys an appreciation of how the mammals came to possess the combination of characters that make this group unique. Emphasis is upon evolution and continuity of structure. One lecture and two double periods of laboratory weekly. Prerequisites: Biol. 153, 154. Spring, even-numbered years.

BIOL. 461: VERTEBRATE EMBRYOLOGY 3 s.h.

A study of the development of the vertebrates, including the formation of germ cells, fertilization, growth and differentiation, and the formation of tissues and organs. One lecture and two double-period laboratories. Prerequisite: One year of biology. Spring, odd-numbered years.

BIOL. 462: HISTOLOGY 3 s.h.

A study of the microscopic structure of tissues comprising the organ system of animals, including man. One lecture and two double-period laboratories. Prerequisite: One year of biology. Spring, annually.

BIOL. 464: DEVELOPMENTAL BIOLOGY 3 s.h.

A study of the major processes in development and their underlying mechanisms. Includes a descriptive study and mechanisms such as differentiation, induction, and morphogenesis. Materials deal primarily with animal development. Two lectures and three laboratory hours weekly. Prerequisites: Biol. 153, 154, 201, and General Chemistry. Fall, annually.

BIOL. 470: ANIMAL ECOLOGY 3 s.h.

Interrelationships of animals and their environment, including physical and biological factors. Discussions and investigations will include animal distribution, procuring food, escape from enemies, surviving climate extremes, species diversity, reproduction, and community organization. Field and laboratory. Prerequisite: Biol. 202. Spring, annually.

BIOL. 471: PLANT ECOLOGY 3 s.h.

A study of the structure, development, and causes of distribution of plant communities based upon individual studies of the major plants in each group. Emphasis upon plant associations in western Pennsylvania visited during the course. Prerequisite: Biol. 202. On demand.

BIOL. 472: PARASITOLOGY 3 s.h.

A study of parasites in relation to man and his domesticated animals. Emphasis is placed

upon morphology and life histories in addition to the ecology of the parasite. Two lectures and three labroatory hours weekly. Fall, annually.

BIOL. 478: BIOME STUDIES 3 s.h.

A travel-study program which offers opportunities for study in the various biomes, e.g. grassland, montane, seashore, etc. Each summer.

BIOL. 490: EVOLUTION 3 s.h.

This course considers basic modern evolutionary theories. The effect of the changes of the earth's crust on the origin of life and the course of evolution is stressed, as well as variation and natural selection. Spring, annually.

BIOL. 491: BIOGEOGRAPHY 3 s.h.

The subject matter will cover aspects of the distribution of plants and animals. Main topics of concern will include interpretive approaches to biogeography, paleobiogeographic evidence of past distributions, the centers of origin of various groups, mechanics and routes of dispersal and colonization, and the dynamics of extinction. Prerequisites: Biol. 201 and Biol. 202 or permission of the instructor. Fall, odd numbered years.

BUSINESS ADMINISTRATION

ACCOUNTING

ACTG 151: FINANCIAL ACCOUNTING 3 s.h.

A study of the principles and procedures for collecting, recording, summarizing, and reporting financial information. Each semester, summer.

ACTG 152: MANAGERIAL ACCOUNTING 3 s.h.

A study of the aspects of accounting that aid managers. Included are budgeting, cost behavior and systems, alternative choice decisions, and cash flow. Prerequisite: ACTG 151. Each semester, summer

ACTG 153: FACTORY ACCOUNTING 3 s.h.

This course presents fundamental accounting concepts and techniques applied in record keeping and accounting control of the production process. Fall, annually, only at Venango Campus.

ACTG 154: ACCOUNTING SYSTEMS 3 s.h.

This accounting course provides a detailed coverage of accounting concepts and procedures involved in accounts receivable, voucher, and payroll accounting systems. Prerequisite: ACTG 152. Spring, annually, only at Venango Campus.

ACTG 250: INTERMEDIATE ACCOUNTING 3 s.h.

A study of accounting theory and practice. Topics included are accounting for current assets, investments, plant and equipment, and intangibles. A special emphasis will be placed upon developing the student's technical and problem-solving ability. Prerequisite: ACTG 152. Each semester, summer.

ACTG 253: FEDERAL TAXES 3 s.h.

A study of federal income, estate, and gift taxation. Problems of compliance with the law by individuals, partnerships, corporations, estates, and trusts are considered. Prerequisite: ACTG 151. Each semester, summer.

ACTG 350: ACCOUNTING FOR EQUITIES 3 s.h.

A study of accounting theory and practice. Topics included are accounting for current and long-term liabilities, corporate equity, pension plans, long-term leases, income taxes, changes in financial position, financial statement analysis, and price-level adjusted statements. A special emphasis will be placed upon developing the student's technical and problem-solving ability. Prerequisite: ACTG 250 or consent of instructor. Each semester, summer.

ACTG 351: COST ACCOUNTING, CONTROLS & ANALYSIS 3 s.h.

Basic consideration of cost principle, procedure, control and analysis. Cost accounting as a "tool" of management is stressed. Prerequisite: ACTG 151, 152. Each semester, summer.

ACTG 353: AUDITING 3 s.h.

A study of the purposes, the ethical and legal environment, and selected techniques of auditing. Prerequisite: ACTG 350. Each semester, summer.

ACTG 355: ADVANCED ACCOUNTING 3 s.h.

A consideration of modern developments in accounting, including recent studies and pronouncements by accounting authorities such as the American Institute of Certified Public Accountants and the Securities and Exchange Commission. Included is a study of the problems of accounting for consolidations and partnership equity. A special emphasis will be placed upon developing the student's technical and problem-solving ability. Prerequisite: ACTG 350. Each semester.

ACTG 451: ACCOUNTING PROBLEMS 3 s.h.

A problem-oriented study of certain specialized areas of accounting Included are consignments, installment sales, receivership, fiduciary accounting, and governmental accounting. Preparations for the practice portion of the C.P.A. exam are emphasized. Prerequisite: ACTG 355. Each semester.

ACTG 453: PROBLEMS IN FEDERAL TAXATION ACCOUNTING 3 s.h.

Federal Income Tax concepts and compliance problems of partnerships, corporations, estates, and trusts. Also a brief consideration of the concepts of social security, estate, and gift taxation. Prerequisite: ACTG 253. Each semester.

BUSINESS COMPUTER INFORMATION SYSTEMS

BCIS 200: COMPUTER INFORMATION PROCESSING 3 s.h.

Basic introduction to data processing, computer operation, programming, and problem solving. Topics covered include: punch card machines, computer components, data representation, arithmetic functions, flowcharting, decision tables, computer languages, batch processing using COBOL, real time using BASIC, operating systems, storage concepts, and minicomputers. Sophomore standing. Each semester, summer.

BCIS 211: RPG II REPORT PROGRAM GENERATOR 3 s.h.

This computer course introduces the theory and application of the report program generator language utilized by businesses with small configurations of computer equipment. Prerequisite: Sophomore standing or consent of instructor. Each semester.

BCIS 223: COMPUTER PROGRAMMING — COBOL 3 s.h.

Introduction to the theory and application of COBOL, the most widely used programming language for administrative applications of computers. Included are file organization and computer concepts. Prerequisite: BCIS 180. Each semester.

BCIS 224: DATA STRUCTURE AND FILE UTILIZATION — COBOL 3 s.h.

Primary consideration is given to the concepts of file structure, file processing, and COBOL programming in relationship to management processes and needs. COBOL is used to implement, test, and explore systems concepts, including simulations and data base design Prerequisite: BCIS 223. Each semester.

BCIS 301: BUSINESS COMPUTER SYSTEMS ANALYSIS 3 s.h.

This computer course studies informational needs and patterns of information flow within businesses. The primary emphasis is on the analysis and design of computer systems. Prerequisites: BCIS 223, and at least one of the following: BCIS 211 or 224 Each semester.

FINANCE

FIN 370: FINANCIAL MANAGEMENT 3 s.h.

A study of the theoretical and analytical framework that a financial manager can use to make decisions in a dynamic economy. Planning the need for funds, acquiring funds, and efficiently utilizing those funds are some of the topics covered. Prerequisites: Econ. 212, and ACTG 152. Each semester, summer.

FIN 373: FUNDAMENTALS OF INSURANCE 3 s.h.

A survey of the principal methods of handling risk with particular attention to the various types of insurance and how they relate to business and personal affairs. Insurance areas covered will include Life, Accident and Health, Social, Fire and Allied Lines, Transportation, Casualty and Surety. Principles of selecting insurance for the firm and private citizen will be discussed. Fall, annually.

FIN 374: PROPERTY AND CASUALTY INSURANCE 3 s.h.

Treatment of property and liability exposures by application of coverages — fire and allied lines; inland and ocean marine, and casualty and surety bonding. Attention will be paid to rating, underwriting, loss preventing, claims administration and corporate risk management. Spring, annually.

FIN 375: MANAGEMENT OF FINANCIAL INSTITUTIONS 3 s.h.

A descriptive analysis of the operations of financial institutions, such as commercial banks, savings banks, insurance companies. Examines techniques and principles involved in the management of financial institutions. Prerequisite: one course in Macro-economics; FIN 370, or consent of instructor. Spring, annually.

FIN 376: SECURITY MARKETS 3 s.h.

Analysis of the organization and operation of stock and bond markets; security speculations; brokerage houses, exchange relations with other institutions; security price behavior; exchange regulation; and risk types and returns from securities. Prerequisite: FIN 370. Fall, annually.

FIN 471: FINANCIAL PROBLEMS 3 s.h.

A consideration by the case method of the financial problems of business firms. Prerequisite: FIN 370. Fall, annually.

FIN 476: SECURITIES ANALYSIS 3 s.h.

A study of securities as an investment device, and the study of techniques of analysis used in selecting securities. Prerequisite: FIN 370. Spring, annually.

MANAGEMENT

MGMT 120 INTRODUCTION TO BUSINESS 3 s h

An introductory course which emphasizes the philosophical and historical background of business institutions, the functional relationship within the business firms and relates the firm to the overall framework of society Each semester

MGMT 121 FUNDAMENTALS OF MANAGEMENT 3 s h

This course is an introduction to management and organization The emphasis is placed on managerial processes and functions and the interface of the manager with superiors subordinates, and the work environment Each semester annually only at Venango Campus

MGMT 227 APPLIED SUPERVISION 3 s h

This course is designed to prepare the student for a position as a first-time supervisor and includes the essential elements of a good management practices and stresses application rather than theoretical supervision concepts Prerequisite: Sophomore standing and MGMT 120 Spring, annually only at Venango Campus

MGMT/PSY 228 HUMAN BEHAVIOR IN ORGANIZATIONS 3 s h

This course is a survey of the application of psychological theory, techniques, and research to organizations The psychological principles of selection training attitudes motivation, job satisfaction, job evaluation and performance are analyzed Fall, annually only at Venango Campus.

MGMT 320: PRINCIPLES OF MANAGEMENT 3 s h

The course covers the history of management; the planning, organizing, and controlling processes; production, financing and marketing factors, and orientation to industrial and labor relations and personnel and supervisory management The emphasis is placed on the management functions and processes required for effective organization in business activity Prerequisite: second semester sophomore standing Each semester

MGMT 321: ORGANIZATION THEORY AND BEHAVIOR 3 s h.

The study of human behavior in organizations, how human beings function in organizations; how organizations pursue their goals, the conditions necessary to secure effective action within organizations; and making and implementing decisions Emphasis is placed on methods and problems of effectively organizing persons for the achievement of objectives. Prerequisite: MGMT 320. Each semester

MGMT 322: SELECTION AND MANAGEMENT OF BUSINESS INFORMATION SYSTEMS 3 s h

This course shows a manager how to develop business management information systems, either on his own or with the aid of system technicians It stimulates the systems techniques in organizing and analysis which the student will use in practice Prerequisite: MGMT 320. Spring, annually

MGMT 323: PROBLEMS IN SMALL BUSINESS 3 s h.

The study of the problems of initiating and operating a small business. Emphasis is on the use of existing data and sources of information available to the small businessman as well as formal knowledge of course work. Fall, annually.

MGMT 382: COLLECTIVE BARGAINING 3 s.h.

A study of the negotiation and scope of collective bargaining contracts, the substance of bargaining power and institutional goals as applied in the resolution of industrial conflict. Spring, annually.

MGMT 420: OPERATIONS RESEARCH I 3 s.h.

Scientific methods which provide executive departments with a quantitative basis for making decisions. Emphasis is placed on deterministic methods such as the transportation problem, linear programming, dynamic programming and PERT. Prerequisite: Econ. 221. Each semester.

MGMT 421: OPERATIONS RESEARCH II 3 s.h.

Scientific methods which provide executive departments with a quantitative basis for making decisions. Emphasis is placed on stochastic processes such as inventory control, queuing theory and markov chains. These processes are examined in a computer simulation environment. Prerequisite: Econ. 222. Spring, annually.

MGMT 424: PERSONNEL MANAGEMENT 3 s.h.

Manpower recruiting, selecting, testing, and training; comprehension theory, policies, and practices, motivation through job enlargement, leadership style, counseling, and disciplinary practices. Prerequisite: MGMT 320. Each semester.

MGMT 425: PRODUCTION MANAGEMENT 3 s.h.

Philosophy of F. W. Taylor and other management pioneers. Nature of the production cycle, simplification and diversification of product lines, purchasing, materials control, routing, scheduling, dispatching, plant layout. Prerequisite: Econ. 221 and junior standing. Each semester.

MGMT 426: INTERNATIONAL BUSINESS 3 s.h

This is an introductory course designed to acquaint the student with the international environment and the growing discipline of multinational business in this environment — i.e., multinational management of. strategic planning, organization, production, research and development, marketing, finance, and human resources. Prerequisite: MGMT 320. Spring, annually.

MARKETING

MKTG 360: PRINCIPLES OF MARKETING 3 s.h.

The topics included are the role of the consumer and consumer motivation; selling and buying functions; physical distribution management; and government regulation and control in marketing. The purpose of the course is to develop an understanding of the increasing complexity of the modern marketing system, why it is essential, and how it performs. Prerequisites: Econ. 211, 212, and junior standing Each semester.

MKTG 361: MARKETING MANAGEMENT 3 s.h.

A study of coordinative effort in planning, organizing, and controlling marketing activities that direct the flow of goods and services from producer to consumer. Prerequisite: MKTG 360. Each semester.

MKTG 362: RETAILING MANAGEMENT 3 s.h.

Retailing management is designed to introduce students to the field of retailing where they will study such areas as organizational structure, merchandising practices and procedures, promotional activities, store planning, control, etc. Prerequisite: MKTG 360, or instructor approval. Each semester.

MKTG 363: ADVERTISING MANAGEMENT 3 s.h.

The uses of advertising and advertising campaigns by business which give emphasis to the patterns and types of marketing strategy and its various functions, legal and moral obligations, problems in developing and evaluating advertising programs, budgeting, scheduling, and client-advertising agency relationships. Prerequisite: MKTG 360. Each semester.

MKTG 364: SALESMANSHIP 3 s.h.

Introduction to the principles of selling. Concerned with influencing, persuading, or the leading of other individuals to buy goods and/or services. Useful for anyone considering a career in sales or sales management. Prerequisite: Permission of the instructor. Fall, annually.

MKTG 365: INDUSTRIAL MARKETING 3 s.h.

An examination of the characteristics of the industrial market; the principles and practices in purchasing raw materials, supplies, and equipment; methods of selling, channels of distribution; promotional activities; and the sales organization and policies. Prerequisite: MKTG 360. Each semester.

MKTG 366: PHYSICAL DISTRIBUTION MANAGEMENT 3 s.h.

Concerned with factors involved in the selection of marketing channels and problems involved in managing the task efficiently. Prerequisite: MKTG 360. Fall, annually.

MKTG 460: SALES MANAGEMENT 3 s.h.

Designed to cover all aspects concerned with the management of a sales force including the selection and testing of salesmen, training, devising compensation plans and expense accounts, territories, quotas, and evaluations. Case studies and problem solving techniques are utilized. Prerequisite: MKTG 360. Each semester.

MKTG 461: MARKETING RESEARCH 3 s.h.

The application of scientific and statistical methods and tools to the solution of marketing problems are studied. Prerequisites: Econ. 221 and MKTG 360. Each semester.

MKTG 465: MARKETING PROBLEMS 3 s.h.

A consideration by the case method of the problems facing the producer and middleman. Prerequisites: MKTG 360, and senior standing. Each semester.

MKTG 468: CONSUMER BEHAVIOR 3 s.h.

The study of theories, models, recent research and research techniques in consumer motivation and decision making. Prerequisite: MKTG 360 and Psy. 211 or permission of the instructor. Each semester.

OFFICE MANAGEMENT

OFMT 131: COLLEGE TYPING 2 s.h.

Emphasis is placed on typing speed and accuracy. Production work includes manuscripts, rough drafts, centering, tabulation, and business letters and forms. Prerequisite: High school typing or demonstrated equivalency. Offered only on Venango Campus. Fall, annually.

OFMT 132: PRODUCTION TYPING 3 s.h.

Emphasis is upon speed and the production of mailable work from rough drafts and unarranged office problems. Prerequisite: College Typing or demonstrated equivalency. Offered only on Venango Campus. Spring, annually.

OFMT 135: COLLEGE SHORTHAND 2 s.h.

Dictation and practice in writing shorthand with emphasis on transcription speed and accuracy. Prerequisite: High school shorthand or demonstrated equivalency. Offered only on Venango Campus. Fall, annually.

OFMT 136: EXECUTIVE SHORTHAND 3 s.h.

Course designed to develop further speed in dictation and transcription of unfamiliar materials, using vocabulary from various business fields. Mailable transcripts emphasized. Prerequisite: College shorthand or demonstrated equivalency. Offered only on Venango Campus. Spring, annually.

OFMT 221. OFFICE MANAGEMENT 3 s.h.

A systems-oriented approach toward the planning, organizing, directing, and controlling general office activities to include all office equipment and electronic data processing tasks as well as office personnel. Prerequisite: MGMT 120. Offered only on Venango Campus. Spring, annually.

OFMT 230: OFFICE PROCEDURES 3 s.h.

Emphasis in the course is on office duties such as handling mail responsibilities, performing simple bookkeeping, arranging meetings, and making travel arrangements. Technological changes in the field will be studied, as well as changes in attitudes toward personnel. Prerequisites: OFMT 131 and 135. Offered only on Venango Campus. Spring, annually.

REAL ESTATE

RE 270: PRINCIPLES OF REAL ESTATE 3 s.h.

This course is designed as an introduction to the broad area of Real Estate. It seeks to lay a foundation of important principles from which a study in depth may be launched. The course should be helpful in preparing for the Real Estate Salesman's license examination. Prerequisite: Sophomore standing or consent of the instructor. Each semester.

RE 272: REAL ESTATE LAW 3 s.h.

This course covers the legal relationships and legal instruments involved in listing and selling real property. Prerequisite: RE 270 or consent of instructor. Each semester.

RE 371: REAL ESTATE FINANCE 3 s.h.

This course is a study of the methods of financing the purchase of real estate, with a brief look at real estate as investment opportunities. Prerequisite: RE 270, or consent of the instructor. Fall, annually.

RE 372: BROKERAGE OF REAL ESTATE 3 s.h.

Brokerage of Real Estate deals with the relationship between: the broker, his client, and the customer; the broker and his salesman, and the broker and the public at large. The realtor and his ethics are stressed. Prerequisite: RE 270, or the consent of the instructor. Spring, annually.

RE 470: APPRAISAL OF REAL ESTATE 3 s.h.

This course is designed to introduce the principles of real estate appraisal to the students. It will include all methods used to appraise real property, and will include both residential and commercial real estate. It is designed to be useful to anyone considering a career in real estate sales and/or real estate appraisal work. The student will have the opportunity to participate in actual real estate appraisals as well as view property under construction to learn types of construction. Prerequisite: RE 270, or the consent of the instructor. Fall, annually.

SPECIALIZED COURSES

BSAD 225: HUMAN RELATIONS IN BUSINESS 3 s.h.

The influence that personnel practices, motivational techniques, organizational techniques, and organizational structures have on human behavior and relations are studied.

The course objective is to stress practical applications of organization and behavioral theory Prerequisite: MGMT 320. Fall, annually

BSAD 240: THE LEGAL ENVIRONMENT I 3 s.h.

The background, importance, and role of law in society; the legal system of the United States and its workings; private property and contract in a free enterprise system, and the evolution of legal attitude toward businesses, including the changing relations between business and government. Prerequisite: sophomore standing Each semester

BSAD 241: LEGAL ENVIRONMENT II 3 s.h

A continuation of the study of law commenced in BSAD 240: Legal Environment I. Emphasis is placed upon the legal principles involved in the following areas: agency, partnerships and corporations, sales, negotiable instruments, real property Prerequisite: BSAD 240. Each semester.

BSAD 490: ADMINISTRATIVE DECISION MAKING 3 s.h

This course requires the student to synthesize what he had learned in the separate business fields and to utilize this knowledge in the analysis of complex business problems. This is the capstone course for a degree in business administration. Prerequisite: Business Administration major and senior standing Each semester.

BSAD 491: INDEPENDENT STUDIES IN BUSINESS 1-3 s.h.

Opportunity to explore in depth a problem or area of business under the direction of a faculty member of the School. Prerequisite: 2.75 grade point average and consent of both instructor and department head. Maximum credit granted in BSAD 491 is 6 credits Each semester.

BSAD 494: BUSINESSMEN'S LECTURE 1 s.h.

The course is designed to introduce the student to successful business practices. The course will call upon several prominent business men/women from the local area to give a series of lectures concerning their business philosophies and practices. The course will assist the student in bringing together knowledge attained from the business curriculum, giving him ideas as to its practical applications. Prerequisite: MGMT 320. Each semester.

CHEMISTRY

PH. SCI. 111: BASIC PHYSICAL SCIENCE: CHEMISTRY* 3 s.h.

This course is intended for non-science majors and does not assume prior familiarity with chemistry. It does not count toward requirements for science majors, but can be applied to fulfill the general education math-science requirements for non-science majors

Selected chemical principles are explored with the purpose of providing a background that will enable the student as a citizen to understand issues involving the interaction of science and society; brief experiments are often included. Students who prefer a more traditional chemistry course may elect either Chemistry 151 or 153 to fulfill their general education requirements. No prerequisites: Each semester.

CHEM. 151: CHEMICAL PRINCIPLES I* 4 s.h

Intended for chemistry majors and others who desire a rigorous introductory course Along with Chem. 152, this comprises the foundation for all subsequent courses in the major

*No student may take, for credit, a chemistry course at the 100 level after having successfully completed any chemistry course numbered 300 or above

sequence. A strong background is desirable but not required. Students should concurrently schedule Chem. 161. Four hours lecture. Fall, annually.

CHEM. 152: CHEMICAL PRINCIPLES II* 4 s.h.

Continuation of Chem. 151; should be taken concurrently with Chem. 162. Prerequisite: Chem. 151. Four hours lecture. Spring, annually.

CHEM. 161: CHEMICAL PRINCIPLES LABORATORY I 1 s.h.

Laboratory exercise to exemplify and augment the material in Chem. 151. This course must be taken concurrently with Chem. 151 unless it is being repeated. Three hours laboratory. Fall, annually.

CHEM. 162: CHEMICAL PRINCIPLES LABORATORY II 1 s.h.

Laboratory exercises to exemplify and augment the material in Chem. 152. This course must be taken concurrently with Chem. 152 unless it is being repeated. Prerequisite: Chem. 161. Three hours laboratory. Spring, annually.

CHEM. 153: GENERAL CHEMISTRY I* 3 s.h.

This is a first course for students not majoring in chemistry; it can serve either as a preparation for Chem. 254 or as a terminal course. Should be taken concurrently with Chem. 163. Three hours lecture. Fall, annually.

CHEM. 154: GENERAL CHEMISTRY II* 3 s.h.

Continuation of Chem. 153. In addition to the traditional topics, this course includes a survey of the principles of organic chemistry, with some examples of general interest. Should be taken concurrently with Chem. 164. Prerequisite: Chem. 153. Three hours lecture. Spring, annually.

CHEM. 163: GENERAL CHEMISTRY LABORATORY I 1 s.h.

Laboratory exercises to exemplify and augment the material in Chem. 153. This course must be taken concurrently with Chem. 153 unless it is being repeated. Three hours laboratory. Fall, annually.

CHEM. 164: GENERAL CHEMISTRY LABORATORY II 1 s.h.

Laboratory exercises to exemplify and augment the material in Chem. 154. This course must be taken concurrently with Chem. 154 unless it is being repeated. Prerequisites: Chem. 153, 163. Three hours laboratory. Spring, annually.

CHEM. 211: SCIENCE AND SOCIETY 3 s.h.

A major goal of this course is to equip the citizen to make intelligent choices and to take effective action in areas where science or technology appear to pose threats, offer benefits, demand funding, or require regulation. For this purpose, and for the additional goal of achieving a minimum level of scientific literacy, the needed technical principles are presented in non-mathematical fashion. Emphasis is placed on the similarities and differences between life and other chemical processes, and on the consequences of the Second Law of Thermodynamics. Open to students in all academic areas. Prerequisite: Sophomore standing. Three hours lecture. Fall, annually.

CHEM. 251: ORGANIC CHEMISTRY I 3 s.h.

The study of bonding, structure, stereochemistry, nomenclature, and the mechanisms of free radical substitution, nucleophilic substitution, electrophilic addition and electrophilic

*No student may take, for credit, a chemistry course at the 100 level after having successfully completed any chemistry course numbered 300 or above.

aromatic substitution. Organic syntheses, reactions and methods will be emphasized. Students must concurrently schedule Chem. 261. Prerequisite: Chem. 151, 152 or 153, 154. Three hours lecture. Fall, annually.

CHEM. 252: ORGANIC CHEMISTRY II 3 s.h.

A continuation of Chem. 251. A discussion of functional groups, their preparation and reactions. Synthesis and mechanisms will be emphasized Students must concurrently schedule Chem. 262. Prerequisite: Chem. 251. Three hours lecture. Spring, annually.

CHEM. 261: ORGANIC CHEMISTRY LABORATORY I 1 s.h.

The laboratory will consist of experiments using important techniques, natural product isolation and syntheses using modern instrumental methods. This course must be taken concurrently with Chem. 251 unless it is being repeated. Three hours laboratory. Fall, annually.

CHEM. 262: ORGANIC CHEMISTRY LABORATORY II 2 s.h.

The laboratory will consist of complex synthesis and organic qualitative analysis both using modern instrumentation. The important spectroscopic methods of infrared, and nuclear magnetic resonance spectroscopy and mass spectrometry will be emphasized. This course must be taken with Chem. 252 unless it is being repeated. Prerequisite: Chem. 261. Six hours laboratory. Spring, annually.

CHEM. 254: INTRODUCTORY ORGANIC CHEMISTRY 3 s.h.

A modern course which surveys the entire field of elementary organic chemistry, both aliphatic and aromatic, with emphasis on nomenclature, simple reactions and mechanisms, and the structure of organic compounds, together with their relation to biology. This course does not count toward the requirements for a major in chemistry. Prerequisites: Chem. 152 or Chem. 154. Three hours lecture. Each semester.

CHEM. 264: INTRODUCTORY ORGANIC CHEMISTRY LABORATORY 1 s.h.

Important techniques, synthesis and functional group analyses of organic compounds. This course must be taken concurrently with Chem. 254 unless it is being repeated. Three hours laboratory. Each semester.

CHEM. 255: INDUSTRIAL CHEMISTRY 3 s.h.

This course deals with the application of theories, laws, and calculations of chemistry to industrial processes. This work is supplemented by reading of current literature and trips to chemical industries. Prerequisites: Chem. 151, 152, or 153, 154. Offered occasionally.

TECHNIQUES AND INSTRUMENTS I-V

Utilizing the department's extremely complete line of modern equipment, this sequence of laboratory-centered courses has been designed to develop or reinforce skills, techniques, theories, and familiarity with instruments used in all branches of chemistry. There is a progression from those operations and concepts that are essential in many areas, including biological sciences, to those that are somewhat specialized but yet of considerable importance to most chemists. The last courses in the sequence permit some individual choice of topics.

The following are representative of the total content: classical wet analytical techniques, quantitative spectrophotometry, calorimetry, electrochemistry, glass-blowing, vacuum-line operations, thermodynamic and kinetic studies, electronic data processing, characterization of macro-molecules, surface studies, molecular and crystal structure determinations by

diffraction and spectral methods, quantitative separations, electro-analytical methods, nuclear magnetic resonance, radiochemical techniques, syntheses, basic electronic circuitry.

Course details and prerequisites are listed below.

CHEM. 351: INTRODUCTION TO TECHNIQUES AND INSTRUMENTS 3 s.h.

The theory and applied techniques and instrumentation of analytical chemistry for majors in the allied health professions. Some of the topics included are spectrophotometry, methods based on equilibrium systems, electroanalytical methods and separation procedures as applied to allied health professions. This course does not count toward the requirements for a major in chemistry. Students must concurrently schedule Chem. 361. Prerequisite: Chem. 152 or 154. Three hours lecture. Spring, annually.

CHEM. 361: INTRODUCTION TO TECHNIQUES AND INSTRUMENTS LABORATORY 1 s.h.

Laboratory exercises to exemplify and augment material in Chem. 351. This course must be taken concurrently with Chem. 351 unless it is being repeated. Three hours laboratory. Spring, annually.

CHEM. 352: TECHNIQUES AND INSTRUMENTS I 4 s.h.

This course serves students both in chemistry and in related fields. Prerequisite: Chem. 152 or 154. Two hours lecture, six hours laboratory. Fall, annually.

CHEM. 356: TECHNIQUES AND INSTRUMENTS II 2 s.h.

Prerequisite: Chem. 354. This course will normally be taken concurrently with Chem. 355. Six hours laboratory. Spring, annually.

CHEM. 357: TECHNIQUES AND INSTRUMENTS III 3 s.h.

Prerequisites: Chem. 352, 354; Chem. 355 concurrently, or consent of department. Two hours lecture, three hours laboratory. Spring, annually.

CHEM. 461: TECHNIQUES AND INSTRUMENTS IV 2 s.h.

Prerequisite: Chem. 357. One hour lecture, three hours laboratory. Fall, annually.

CHEM. 354: PHYSICAL CHEMISTRY I 4 s.h.

This course is concerned primarily with the principles of thermodynamics. Kinetics is discussed in the latter portion of the term. The laws of thermodynamics are applied to many problem solving situations. Calculus is used heavily, and a basic familiarity with the handling of simple differentials and integrals is necessary. Kinetics is treated from experimental and mechanistic points of view. Prerequisites: Chem. 152, 162; Physics 252 or 259; Math 271. Four hours lecture. Fall, annually.

CHEM. 355: PHYSICAL CHEMISTRY II 4 s.h.

Both the classical wave formulation and the concept of operators are developed as approaches to the study of quantum mechanics, and simple one-electron problems are solved. This groundwork is then extended to molecular problems. Spectroscopy is examined in detail, particularly as a tool in the determination of molecular structures. Powder and single-crystal x-ray diffraction techniques are discussed and their use as research tools investigated. Prerequisite: Chem. 354. Four hours lecture. Spring, annually.

CHEM. 359: ADVANCED ORGANIC CHEMISTRY 3 s.h.

A study of reaction mechanisms, synthetic methods, and structure elucidations. Emphasis is placed on correlation of structure, and reactivity and on stereochemistry. Prerequisites: Chem. 252, 355. Three hours lecture. Fall, annually.

CHEM 453 BIOCHEMISTRY 3 s.h.

An introduction to modern cellular biochemistry. A study of proteins, enzymes, nucleic acids and fats, the metabolic transformations of amino acids, carbohydrates, lipids, protein synthesis and photosynthesis; and the respiratory chain and oxidative phosphorylation. Prerequisite: Chem. 251 or Chem. 254. Three hours lecture. Spring, annually.

CHEM 463 BIOCHEMISTRY LABORATORY 1 s.h.

Laboratory exercises to exemplify and augment material in Chem. 453. This course must be taken concurrently with Chem. 453 unless it is being repeated. Three hours laboratory. Spring, annually.

CHEM. 455. ADVANCED PHYSICAL CHEMISTRY 3 s.h.

This course is concerned primarily with statistical mechanics and additional aspects of quantum mechanics. Prerequisite: Chem. 355. Offered occasionally.

CHEM. 456: ADVANCED INORGANIC CHEMISTRY 3 s.h.

Various concepts of bonding, encountered in previous courses, are extended and compared to gain some appreciation of their uses and shortcomings. Considerable attention is given to steric relationships in many environments. The descriptive chemistry includes recently discovered compound types as well as the classical period-group — subgroup patterns of behavior. Prerequisite: Chem. 355 (may be taken concurrently) or consent of department. Three hours lecture. Spring, annually.

CHEM. 459: DEMONSTRATIONS IN CHEMISTRY 3 s.h.

Studies are made of various demonstration techniques with students devising and applying each with many examples. Special attention is given to the study of the material of the CHEM Study Committee of the American Chemical Society prepared for the purpose of vitalizing high school chemistry courses. Prerequisites: Chem. 151, 152, and at least one other major course. Offered occasionally.

CHEM. 460: RADIOCHEMISTRY TECHNIQUES 2 s.h.

A general course dealing with radioactive materials, their radiations, preparation of isotopes in various chemical forms, detection, identification and applications. Aspects of safety and basic laws and regulations are stressed. Emphasis is placed on nuclear instrumentation, including G.M., scintillation and gas flow counting techniques. Work with a neutron howitzer, including basic activation analysis with its associated gamma ray spectroscopy, is studied. Prerequisites: Chem. 152 or 154; Math 151 or 171. One hour lecture, three hours laboratory. Offered occasionally.

CHEM. 465, 466: CHEMICAL RESEARCH 1-3 s.h. each

An independent laboratory problem in some field of chemistry of special interest to the student. Admission only by consent of the instructor and the approval of the Department Chairman. Prerequisites: Chem. 355, 357. Each semester.

CHEM. 470: CHEMICAL LITERATURE AND SEMINAR 1-2 s.h.

Search of the chemical literature on a topic of current interest, compilation of a bibliography, preparation of an abstract, and presentation of an oral report. Spring, annually.

CHEM. 471: SPECIAL TOPICS IN CHEMISTRY 3 s.h.

Topics of current interest in the field of chemistry will be presented. The choice of topics will vary from year to year, but the subject areas each year will include topics from three different areas. Topics such as nonaqueous solvents, solid state chemistry, polymers, chemical physics, group theory, stereochemistry, organometallics and recent developments in spectroscopy will be discussed. Prerequisite: Chem. 355 (may be taken concurrently). Offered occasionally.

CHEM. 485: PROBLEMS IN CHEMICAL EDUCATION 1-3 s.h.

An opportunity to explore in depth a problem area in chemical education according to the student's need or interest under the direction of a faculty member. Admission only by consent of the instructor and the approval of the Department Chairman. Prerequisites: Junior standing, or consent of the Department. Not open to Chemistry majors in the Liberal Arts or Bachelor of Science Curriculum. Each semester.

COMMUNICATION

COMM. 101: WRITING FOR MEDIA 3 s.h.

Develops fundamental skills in writing and/or visualizing for a variety of media forms. Emphasis will be placed on print and broadcasting newswriting, advertising copywriting, and public relations writing. Spring, annually.

COMM. 102: INTRODUCTION TO IMAGES 3 s.h.

Develops an awareness of the perceptual cues in the environment and in non-print media, with the goal of enabling the student to use this awareness in the design of graphic, film, electronic, and sound images. An introduction to the production process. Camera required. Check with School of Communication. Spring, annually.

COMM. 200 NEWSWRITING 3 s.h.

Principles and practice of evaluating, gathering and writing the fundamental news story and news feature; preparation of copy for publication, interviewing, and laboratory experience. Fall, annually.

COMM. 201: MESSAGE DESIGN 3 s.h.

Investigates the elements of effective communication, including the dimensions of sensory perception, meaning, environment, attitude, and technology. Students shall be required to apply theoretical concepts to practical problems. Prerequisites: Comm. 101 and Comm. 102. Fall, annually.

COMM. 202: EDITING, MAKEUP AND REPRODUCTION 3 s.h.

Provides the student with experience in working with clients and with graphic arts professionals to produce illustrated print materials such as brochures, newsletters, financial reports, mailers, and display posters. Wherever possible, the student will work on projects for which an actual client exists. Spring, annually.

COMM. 203: COMMUNICATION RESEARCH METHODS 3 s.h.

Develops skills in research techniques necessary for determining communication needs and analyzing audience characteristics. Also develops ability to graphically represent data. Prerequisite: Comm. 201. Spring, annually.

COMM. 240: LOCALLY PRODUCED MATERIALS 3 s.h.

Design and production of materials — handouts, charts, posters, bulletin boards, displays, and slide/tape programs. Skills in lettering, layout, design, color, simple photography, and audiotape recording with portable equipment will be learned. Each semester.

COMM. 250: JOURNALISM 3 s.h.

Provides an introduction to mass communication and the media. The current concept of journalism as a skill to achieve effective communication within the confines of numerous occupations is explored, and journalistic techniques are examined. The social responsibility of the press is probed as to the needs of society and society's need to know. Spring, annually.

COMM. 301: PRODUCTION APPLICATION 5 s.h.

Designed to acquaint students with the production of a television program utilizing the various materials and techniques necessary to produce a program. Students will be required to have available a 35mm camera. Specifications are available from the School of Communication. Prerequisites: Comm. 102 and Comm. 201. Fall, annually.

COMM. 302: COMMUNICATION REGULATION AND POLICY 3 s.h.

Introduces the student to various regulations and policies governing the field of communication such as FCC rules and regulations, current laws, and libel laws. Both print and non-print media will be included in the course. Other factors influencing the communication field will be discussed such as OSHA, unions, personnel relations, etc. Fall, annually.

COMM. 315: PHOTOGRAPHY 3 s.h.

Provides basic principles of photography. Study of camera and darkroom techniques; the production of photographs for news, advertising, scientific, and instructional use. Includes display and other photographic assignments. Spring, annually

ED. 329: AUDIOVISUAL COMMUNICATION 3 s.h.

The study of educational theory and practice concerned with the design and use of messages within the learning environment. Each semester and summers.

COMM. 400: MEDIA ADVERTISING 3 s.h.

Analysis and design of advertising in the print and broadcast media from the point of view of the advertising agency, the advertiser, and the consumer. On demand.

COMM. 401: COMMUNICATION EVALUATION 3 s.h.

Defines the procedures for determining measurable objectives for the communication process. Specifies the types of evaluation and the conditions necessary for subsequent decisions. Emphasizes ensuring means of accountability. Prerequisite: Comm. 203. Fall, annually.

COMM. 402: INTERNSHIP 5 s.h.

Provides experience during which the student applies theory and technique to communication problems of a cooperating business, industry, agency, or institution. The student will be required to obtain approval of a detailed proposal. Prerequisites: Comm. 302 and senior standing. Individual exceptions may be granted upon application to the Academic Affairs Committee through the advisor. Spring, annually.

COMM. 440: MEDIA PRODUCTION PLANNING 3 s.h.

Provides the basic scriptwriting and production skills for audiotapes, slide/tape programs, videotapes with portable equipment, simple television studio productions, and silent 8mm films for use for individualized instruction, large and small group instruction, student group projects, and training and public relations situations in education, the community, business and industry. Prerequisite: Comm. 240 or permission of the instructor. On demand

COMM. 454 RADIO AND TELEVISION 3 s.h.

An introduction to the broadcasting industry including history, regulations, station and network organization, technical aspects, advertising, ratings, social influences, programming, and production. A foundation course for communications study, radio-TV career preparation, and the development of knowledgeable consumers of the broadcast media. Fall, annually

COMM. 491: INDEPENDENT STUDY 1-3 s.h.

This course allows the imaginative student to structure an independent research project in the area of Communication with a minimum of faculty supervision. A proposal specifying objectives, methods, and evaluation techniques must be submitted and approved by the student's advisor.

COMM. 499: SPECIAL TOPICS IN COMMUNICATION 1-3 s.h.

Focuses on a single, broad, contemporary topic of current interest in Communication and related fields. Course content varies from semester to semester. Topics to be considered will be announced in advance. May be taken three times for credit. On demand.

COMPUTER SCIENCE

C.S. 151: INTRODUCTION TO FORTRAN 3 s.h.

Beginning course in programming using FORTRAN. The FORTRAN language exemplifies the use of a high level language processor which can resolve problems requiring scientific methods as well as business applications. All material is presented in an orderly fashion designed to aid the student in understanding the various algorithms underlying solutions to a variety of problems. Each semester.

C.S. 152: ADVANCED FORTRAN PROGRAMMING 3 s.h.

An advanced course in FORTRAN programming designed to acquaint the student with the many facets and extensions of the FORTRAN language. Many advanced features of the language which are not covered in the introductory course will be explored; particularly Disk and Tape operations, built-in functions and debugging techniques. Prerequisite: C.S. 151. Each semester.

C.S. 240: DISCRETE MATHEMATICAL STRUCTURES 3 s.h.

An introduction to the mathematical expertise necessary to facilitate the efficient computer manipulation of data. Topics include permutations and combinations, boolean logic, lattices, graphs, etc. Prerequisite: Boolean Algebra or consent of the instructor. Fall semester.

C.S. 253: COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGES 3 s.h.

This course consists of two major parts. The first part is an introduction to assembly language programming and the second part concentrates on an introduction to computer organization and the structuring of major hardware components. It develops a basic understanding of the mechanics of information transfer and control and the fundamentals of logic design. Prerequisite: C.S. 152 or BCIS 224 for Bus. Ad. majors. Spring semester.

C.S. 254: INFORMATION STRUCTURE 3 s.h.

An introduction to computer bulk storage devices. Emphasis is placed on how to operate these devices as well as how to structure the data which is placed on the devices. Prerequisite: C.S. 152 or BCIS 224 for Bus. Ad. majors. Each semester.

C.S. 255: SURVEY OF LANGUAGES 3 s.h.

A survey of several of the more popular compiler languages with emphasis on the types of problems for which each language was designed and how each language is adapted to the computer hardware of the major vendors. Prerequisite: C.S. 152 or BCIS 224 for Bus. Ad. majors. Fall semester.

C.S. 355: OPERATING SYSTEMS 3 s.h.

This course is a study of computer operating systems. Topics covered are: the functions of operating systems, the design of operating systems at the register-transfer and programming

levels, and the important relationships between operating systems and computer hardware Prerequisites: C.S. 253 and C.S. 254. Fall semester.

C.S 356: DATA STRUCTURES AND ALGORITHM ANALYSIS 3 s.h.

This course develops skills in the application to algorithmic methods to the solution of decision problems in the use of data structures. Prerequisite: C.S. 254 Fall, 1980 and annually thereafter

C.S 357: STRUCTURE OF PROGRAMMING LANGUAGES 3 s.h.

This course involves a study of the capabilities and limitations of programming languages based on the types of operations allowable and efficiency of such operations. Various languages are used to illustrate such differences and there is substantial emphasis on programming style to achieve high efficiency. Various data types and structures are also covered. Prerequisites: C.S. 253 and C.S. 254 Fall semester.

C.S. 460: INTRODUCTION TO THEORY OF COMPUTATION 3 s.h.

Includes Finite State and Infinite State Machines, Computability, Formal System. An introduction to the theory underlying the design, use and limitations of computers. Prerequisites: C.S. 152 or BCIS 224 for Bus. Ad. majors, and C.S. 240. Every second year or on demand.

C.S. 461: OPERATING SYSTEMS II 3 s.h.

Operating systems is a course devoted to the study of the computer programs that are used to control and monitor the overall functioning of the computer as it runs the various application or teaching/learning programs for which the computer was acquired. The operating programs for most users are supplied by the manufacturer, but must of course be originally designed by computer scientists in relation to the architecture of a particular machine. They may also be modified to provide additional capabilities. This is an advanced course in operating systems following Operating Systems I. Prerequisites: C.S. 355 and Math 352. An elective offered as student demand warrants.

C.S. 462: SIMULATION AND MODELING 3 s.h.

This course covers the advantages and disadvantages of using computer simulation in modeling Students will learn and practice techniques of computer simulation. Prerequisites: C.S. 152 or BCIS 224 for Bus. Ad. majors and either Math 221 or Math 352 or consent of instructor. Spring semester.

ECONOMICS

ECON. 211: PRINCIPLES OF ECONOMICS I 3 s.h.

Introduction to economics, national income analysis, money and banking, monetary and fiscal policy. Each semester.

ECON. 212: PRINCIPLES OF ECONOMICS II 3 s.h.

Consumer behavior and demand; organization of production; market structures and the pricing of outputs and inputs; international economics and selected economic problems. Prerequisite: Econ. 211. Each semester.

ECON 221: ECONOMIC AND BUSINESS STATISTICS I 3 s.h.

Topics covered are descriptive statistics, probability, probability distributions, mathematical expectation, sampling distributions, determination of sample size, and Bayesian decision theory. Application of these statistical techniques in the areas of business and economics will be emphasized. Prerequisite: College Algebra or equivalent. Each semester.

ECON. 222: ECONOMIC AND BUSINESS STATISTICS II 3 s.h.

Topics covered are confidence intervals, hypothesis testing, the chi-square distribution, analysis of variance, regression and correlation, time series and index numbers. Application of these techniques in the areas of business and economics is emphasized. Prerequisite: Econ. 221. Each semester.

ECON. 310: MICROECONOMIC THEORY 3 s.h.

Basic concepts of microeconomic theory. The behavior of consumers, producers, and markets. Prerequisites: Econ. 212, Math. 132 or 172, or equivalent. Each semester.

ECON. 311: MACROECONOMIC THEORY 3 s.h.

National income accounting and analysis; economic indicators and measures; fluctuations and growth; the role of money in a dynamic economy; forecasting for the economy and the firm; the problems of public policy. The objective of this course is to develop in the student an awareness of the impact of dynamic forces on economic activity in general and specifically on the decisions which must be made by individuals and firms. Prerequisite: Econ. 212. Fall, annually.

ECON 312: COMPARATIVE ECONOMIC SYSTEMS 3 s.h.

Analysis of alternative patterns of economic control, planning, and market structure. Experiences under capitalism, socialism and mixed economics are compared and evaluated. Prerequisite: Econ. 212. Fall, biennially.

ECON. 340: GOVERNMENT REGULATIONS 3 s.h.

An examination of the major economic problems arising from public interest in competition, business practices, and labor. The anti-trust laws and regulations are included. Prerequisite: Econ. 212. Spring, biennially.

ECON. 341: PUBLIC UTILITIES 3 s.h.

An analysis of public policies and methods regarding industries with a public interest with emphasis on transportation, power and communication. The study of legal and financial aspects of public utilities are part of this course. Prerequisite: Econ. 212. Fall, biennially.

ECON. 351: INDUSTRIAL RELATIONS 3 s.h.

A study of union history, structure, and functions in the United States economy. Collective bargaining, labor laws, and government policies toward labor are included. Management reaction to organized labor unions and related labor problems are stressed. Prerequisite: Econ. 212. Spring, biennially.

ECON. 361: INTERNATIONAL ECONOMIC RELATIONS 3 s.h.

Theory and practice of international trade. Balance of payments, foreign exchange, national commercial policies, international investment, and foreign aid are considered. Prerequisite: Econ. 212. Spring, annually.

ECON. 370: MONEY AND BANKING 3 s.h.

Nature and origins of money; the commercial banking system and money creation; central banking and the Federal Reserve System; monetary policy and domestic and international economic stability. Prerequisite: Econ 212. Spring, annually.

ECON. 371: PUBLIC FINANCE 3 s.h.

Public sector activity and its impact upon resource allocation, income distribution, economic stabilization and economic growth. Financing public sector activity at the federal, state and local level. Nature and origin of public debt and debt management problems. Prerequisite: Econ. 212. Fall, annually.

ECON. 410: MANAGERIAL ECONOMICS 3 s.h.

Use of economic analysis in the formulation of business policies. Decision theory and criteria for decision-making by the firm; output and "scale" decisions; linear programming; profits, production functions and cost functions; competitive equilibrium (industry and firm); demand theory, pricing policies, capital budgeting and investment, uncertainty; inventory management. Prerequisites: Econ. 222, 310, and ACTG 152. Each semester.

ECON. 414 URBAN AND REGIONAL ECONOMICS 3 s.h.

Introductory subnational economics. Focuses upon problems of economic stability, growth and the distribution of income. Includes elementary trade theory, location theory, systems of cities, land use changes, economic accounting systems and public sector economics Prerequisites: Senior standing or consent of instructor. Spring, biennially.

ECON. 423: STATISTICAL TOOLS FOR QUANTITATIVE ANALYSIS 3 s.h.

Application of the statistical methods of probability, sampling, estimation, analysis of variance, regression, and correlation in the areas of economics and business. Prerequisite: Econ. 222. Spring, biennially.

ECON. 470: BUSINESS CYCLES 3 s.h.

Theories of business fluctuations; applications of modern income theory to business cycles; patterns of cyclical behavior and of long-term economic change. Implications for public policy. Prerequisite: Econ. 212. Spring, biennially.

ECON. 490: HISTORY OF ECONOMIC THOUGHT 3 s.h.

Development of economic ideas from ancient times to the present. Emphasis upon the period from Adam Smith onward. Considers the economic and political environment in which ideas emerged as well as the leading economists advancing or defending the ideas. Prerequisite: Econ. 212 and senior standing. Spring, annually.

ECON. 491: INDEPENDENT STUDIES IN ECONOMICS 1-3 s.h.

Opportunity to explore in depth a problem or area of economics, according to the student's interest, under the direction of a faculty member of the Department. Prerequisite: 2.75 grade point average and consent of both instructor and department head. Maximum credit granted in Econ. 491 is 6 credits.

EDUCATION

ED. 221: DEVELOPMENTAL READING 3 s.h.

A broadly based course which emphasizes improvement in rate, comprehension, reading taste, and independence in reading. Students are introduced to wide and varied sources of reading and numerous means of improvement in reading skills. Instruction in theory and an introduction to the possibilities of a supplementary mechanical program for reading improvement are included. Every other semester.

ED. 223: SOCIAL FOUNDATIONS OF EDUCATION 3 s.h.

An introductory course to teacher preparation including the social aspects of teaching, the educational aspects of the environment, the influence of social class on learning, the social functions of the schools, and the educational problems of a changing society. Requirements and opportunities for careers in education are related to programs for teacher preparation. Each semester, summer.

ED. 224: EDUCATIONAL TESTS & MEASUREMENTS 3 s.h.

Professional techniques for educational testing procedures applied to the administration, construction, interpretation, and statistical computation of educational measurements. A first course. Every other semester.

ED. 324: METHODS OF TEACHING AND EVALUATING MATHEMATICS 3 s.h.

Place and function of mathematics in secondary education; content and improvement and evaluation of instruction in mathematics; acquaintance with current literature and research; observation in secondary schools. Prerequisite: 9 hours of college mathematics. Each semester.

ED. 326: METHODS OF TEACHING AND EVALUATING SOCIAL STUDIES 3 s.h.

This course is geared to coordinate knowledge of the social sciences with various strategies of teaching in a social studies program in the secondary schools. Emphasis is placed on the inquiry method. Students are expected to develop competencies in formulating objectives, in questioning, in planning lessons, in evaluation of materials, programs, and student performance and in designing learning activity packets. Students are afforded the opportunity to observe and to engage in clinical teaching experiences. Open to juniors and seniors. Fall.

ED. 328: METHODS IN TEACHING AND EVALUATING COMMUNICATION ARTS 3 s.h.

The course is designed to prepare the aspiring secondary school teacher in the methods of teaching such language based subjects as speech, composition, literature, grammar, and reading and in such language-related, communication oriented activities as dramatics, journalism, yearbook production, and media use. Each semester.

ED. 329: AUDIOVISUAL COMMUNICATION 2 s.h.

The study of educational theory and practice concerned with the design and use of messages within the learning environment. Each semester, summer.

ED. 331: METHODS OF TEACHING AND EVALUATING FOREIGN LANGUAGES (APPLIED LINGUISTICS) 3 s.h.

Lectures, discussions, and extensive reading on language learning and language teaching, with an introduction to applied linguistics. Required of all foreign language education majors except those taking Ed. 322 or 327. Spring, annually.

Ed. 332: BIOMETHODS 3 s.h.

A course designed to prepare biology teachers for the secondary schools. Emphasis is on formulating objectives, selecting and organizing content, developing skill in using a variety of teaching strategies, and evaluating pupil progress. The investigatory approach to teaching biology is stressed in laboratory, field, and simulated teaching experiences. Observations and teaching experiences in area schools are included. Fall, annually.

ED. 333: TEACHING OF READING — SECONDARY 3 s.h.

An overview of physiological and psychological aspects of reading and methods applicable for group and individual instruction at the junior and senior high school levels. English majors who wish to qualify for certification in reading in the graduate program should schedule this course as a prerequisite to all other courses in reading. Not open to Elementary Education majors. Fall, annually.

ED. 334 METHODS OF TEACHING THE PHYSICAL SCIENCES 3 s.h

Modern concepts of chemistry, physics, and general science teaching and evaluating with emphasis on a laboratory oriented approach. The philosophy, laboratory techniques, curriculum testing, and extra-curricular aspects of secondary school chemistry, physics, and general science teaching will be presented. Prerequisite: For secondary chemistry majors — 16 s.h. in chemistry; for comprehensive science majors — 16 s.h. of biology, chemistry, physics and/or applicable geography courses; for physics majors — ten hours of physics. Fall annually.

ED. 335: METHODS OF TEACHING AND EVALUATING PHYSICS AND MATHEMATICS 3 s.h.

This course is designed for those students desiring to become certified in both Physics and Mathematics. It contains the modern methods of teaching and evaluating in both these disciplines, as described in the courses listed as Education 334 and Education 324, in that the student will divide his time between these two methods courses according to a schedule prepared in consultation with the instructors in these courses. Fall, annually.

ED. 401: METHODS IN ENVIRONMENTAL (OUTDOOR AND CONSERVATION) EDUCATION 3 s.h.

Philosophy, history, development, theory, and methods of outdoor, conservation, and environmental education. Skills in developing material and activities. Relation of the out-of-doors to school curricula. Prerequisites: Education major, upper division standing. Each spring, and summer on demand.

ED. 403: FIELD EXPERIENCE IN MODERN CONCEPTS OF OUTDOOR EDUCATION 3 s.h.
(McKeever Center in Sandy Lake, Pa. will be utilized for presentation of this course)

The course focuses on the application of current educational concepts, i.e., learning stations, team teaching, creative writing, dramatic role playing, and other creative activities to outdoor education. The relationship of all curriculum areas to outdoor education is examined and practiced. The course may be taken for graduate credit with the approval of the Education Department Chairman and the instructor. Offered for two weeks at a time between spring graduation and the beginning of regular summer school only.

ED. 422: PROFESSIONAL PRACTICUM INCLUDING SCHOOL LAW 2 s.h.

Special attention to the practical application of techniques of teaching and classroom management, comparison of techniques in specialized areas, typical problems encountered in student teaching, general principles of school law, and Pennsylvania school laws pertaining to the work of the classroom teacher. Limited to student teachers except by special arrangement. Each semester.

ED. 423, 424: LIBRARY PRACTICE AND SECONDARY STUDENT TEACHING (6,6) — 12 s.h.

Two major assignments are required: the equivalent of one-half time in public school library practice and the equivalent of one-half time in classroom academic teaching, both under the supervision of approved cooperating librarians and teachers in public school student teaching centers affiliated with the College. Each semester.

ED. 424: SECONDARY STUDENT TEACHING 12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work in the area of the student's specialization. Assignments for secondary student teaching are completed at off-campus public school teaching centers associated with the College. Each semester.

ED. 426: READING PROBLEMS IN THE SECONDARY SCHOOL 3 s.h.

The course prepares the teacher to plan corrective procedures which will evaluate the return of the student to his appropriate level of reading and comprehension in the diversified and comprehensive reading needs of the secondary school. Prerequisite: Ed. 333. Each semester, summer.

ED. 427: EXCEPTIONALITIES IN THE REGULAR CLASSROOM: IDENTIFICATION AND INSTRUCTION 3 s.h.

This course is designed to prepare students to deal with the nature and needs of the exceptional person in a regular classroom. Contemporary methods of identification and strategies for appropriate instruction will be examined. Each semester.

ED. 432: STUDENT TEACHING IN MUSIC 10 s.h.

Observing and teaching, under supervision, in vocal and instrumental music in the elementary, junior and senior high schools. Each semester.

ED. 450: INDEPENDENT STUDY 1-3 s.h.

This course is designed to provide students with an opportunity to explore an area of special need or interest in Education in depth under the supervision of a member of the department. Students must develop a proposed study plan and secure the approval of the proposed director and department chairperson prior to registration. Prerequisite: Junior or Senior standing.

ED. 452/552: READING PROBLEMS WORKSHOP 3 s.h.

Within a format that includes the identification of problems and their possible causes, the selection of solutions, and procedures for the evaluation of results, participants will examine reading issues relevant to their current or anticipated professional roles. Emphasis will be on problems which affect groups of students rather than individuals. Consultation with school districts represented will be sought. Graduate students will be required to complete one additional assignment. Prerequisite: One course in reading or one year of teaching experience. Every other year.

ED. 455: EXCEPTIONALITIES IN THE REGULAR CLASSROOM: ORGANIZATION AND SERVICES 3 s.h.

This course is designed to provide the student with information concerning regular classroom organization, services for the exceptional individual and legal aspects of the least restrictive environment. Prerequisite: Ed. 427. Spring, annually.

ELEMENTARY EDUCATION

EARLY CHILDHOOD EDUCATION

E. CH. 231: CREATIVE ACTIVITIES 3 s.h.

Exploration of the nature and value of creativeness together with classroom opportunities for its development. Consideration of the unit of work and the guidance of children in creative learning and expression. Student participation in individual and group projects by which they demonstrate how creativeness can be fostered in the elementary school. Each semester, summer.

E. CH. 321: CHILD DEVELOPMENT 3 s.h.

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development. Emphasis on techniques of motivation, principles of learning, the role of individual differences, and environmental factors affecting attitudes, personalities, growth, and intellectual interests. Lectures, discussions, readings, and reports required. Each semester, summer.

E. CH. 332: NURSERY — KINDERGARTEN EDUCATION 3 s.h.

Study of the function of pre-school and kindergarten programs in relation to the growth and development of children with a consideration of developmental and environmental influences on emotional problems. Study of the curriculum, physical environment, and such areas in music, literature, arts, science, creative expression, home-school relations, and dramatic play. Campus school experiences, directed reading, and films. Each semester.

E. CH. 335: SEMINAR IN EARLY CHILDHOOD EDUCATION 1-6 s.h.

Topics and problems in early childhood education which have been omitted or briefly treated in the formally organized course offerings. Students will do field study to strengthen early childhood competencies, based on individual need, and present findings to a seminar group. Prerequisite: Junior Standing and El. Ed. 332. Each semester.

E. CH. 401: CREATIVE RESPONSE TO CONFLICT: SOCIALIZATION AND DEVELOPMENTAL VIEWPOINTS 3 s.h.

The course is designed to support the participants in understanding theory and in planning techniques of conflict resolution. The course examines and practices cooperation (community building), communication effectiveness, and affirmation (self-concept) as primary components for actual creative responses to personal and group conflicts. Human capabilities for resolving conflicts at various life stages and in various situations are examined and practiced. Once annually.

E. CH. 420: INCIDENTAL LEARNING 3 s.h.

The course examines incidental learning gained by young children through their interactions with the people and products of their society's major institutions. It asks such questions as these: how do children interact with these institutions; what "rules of the game," ways of thinking, feeling, and valuing do children learn as incidental by-products of these interactions; how can teachers, for example, plan encounters (with people, materials, and environments) so that the encounters contribute to children's learning goals rather than subvert them. Fall, annually.

ELEMENTARY EDUCATION

EL. ED. 110: INTRODUCTION TO ELEMENTARY EDUCATION 3 s.h.

This course familiarizes the student with the aims, organization, and pupil population of the public schools with an emphasis on the elementary program. It also familiarizes the student with the social, historical, philosophical and political foundations of education in the United States. These learnings will be internalized through directed observations and firsthand experience in cooperating public schools or the Research Learning Center and Conservation Education Center of the college. Each semester.

EL. ED. 323: TEACHING OF READING 3 s.h.

An overview of the physiological and psychological aspects of reading and the materials and methods applicable for group and individual instruction in the elementary grades. Each semester, summer.

EL. ED. 324: TEACHING OF ELEMENTARY SCHOOL MATHEMATICS 3 s.h.

This course examines topics from both the "traditional" and the "modern" elementary school mathematics instructional program. Emphasis is placed upon the scope and development of the subject matter of some of the more recent programs and upon the recent psychological contributions in the area of conceptual stages, styles, and tempos related to teaching elementary school mathematics. The development and implementation of a repertoire of mathematics teaching strategies, instructional media, and diagnostic procedures are stressed throughout the course. Prerequisite: Math 111. Each semester, summer.

EL. ED. 325: MODERN CURRICULUM AND METHODS 5 s.h.

An integrated course coordinating theory and practice in the teaching of social studies and language arts. Methods and Materials applicable to unit type teaching, to the integrated classroom, and to more traditional formations of the school curriculum are developed. Emphasis is placed on selection, organization, and evaluation of experiences and materials for elementary school children in the areas of social studies and language arts. Note: the course includes Phys. Ed. lab of 1 credit. Each semester, summer.

EL. ED. 326: READING PROBLEMS IN THE ELEMENTARY SCHOOL 3 s.h.

Provides theory and practicum for the remedy of reading and learning problems in the classroom, and the diagnostic tools and methods with which to discover and correct the academic, emotional, and physical factors involved in children with specific and non-specific learning disorders in the field of reading. Prerequisite: Student teaching or its equivalent, or permission of department chairman. Each semester, summer.

EL. ED. 331: CHILDREN'S LITERATURE 3 s.h.

A study of the best children's literature, both old and new, and the age when it is most appreciated. Students are acquainted with the history of children's literature, authors, illustrators, children's periodicals, and sources available for book selection. Wide reading of children's books, story telling, and oral reading are required. Required for elementary majors. Each semester, summer.

EL. ED. 422: PROFESSIONAL PRACTICUM INCLUDING SCHOOL LAW 2 s.h.

Problems, practices, and regulations attending student teaching professional experiences. Coordination of the student teaching program with the educational objectives of the student teaching centers. Pennsylvania school laws relevant to the work of the beginning elementary school teacher. Practical interpretations of professional ethics and the functions of professional organizations. Limited to student teachers. Each semester.

EL. ED. 424: ELEMENTARY STUDENT TEACHING 12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work. The semester's program is divided into two student teaching assignments involving experience at two grade levels. Most assignments for elementary student teaching are completed at public school off-campus student teaching centers associated with the College. Each semester.

EL. ED. 423, 424: LIBRARY PRACTICE AND ELEMENTARY STUDENT TEACHING (6,6) — 12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work. The semester's program is divided into two student teaching assignments involving experience at one grade level and an elementary school library. Most assignments for elementary student teaching are completed at public school off-campus student teaching centers associated with the College. Each semester.

ENGLISH

ENG. 110: BASIC COMPOSITION SKILLS 3 s.h.

This course is designed to provide instruction in the fundamentals of writing. Students are preassigned to English 110. All students who take English 110 must also take English 111: English Composition. Each semester.

ENG. 111: ENGLISH COMPOSITION 3 s.h.

This course emphasizes the development of practical skills in expository writing through writing experiences and the study and analysis of prose models. When necessary, work is done in punctuation, basic grammar, and spelling. This course is a college-wide requirement; however, it may under some circumstances be exempted. Each semester.

ENG. 170: THE LITERARY EXPERIENCE 3 s.h.

This introductory course provides a wide selection of literature to acquaint the student with various literary genres. No prerequisite. Recommended for all students. Each semester.

ENG. 200: COMPOSITION AND LITERATURE 3 s.h.

This course stresses the writing of papers as a direct result of reading, discussion and interpretation of a variety of literary types. The short story, the drama, and the poem are examined from several points of view. Research techniques and related skills are utilized as needed. Prerequisite: exemption from or completion of the General Education English requirement. Each semester.

ENG. 201: ADVANCED COMPOSITION 3 s.h.

Advanced composition emphasizes writing experience in critical, expository, descriptive, argumentative, and creative work through intensive study of examples, frequent papers, and critical discussion of students' work. Prerequisite: exemption from or completion of the General Education English requirement. Each semester.

ENG. 202: BEGINNING CREATIVE WRITING 3 s.h.

This beginning course in creative writing introduces students to the techniques of both prose and poetry writing. Major emphasis is on writing practice for students and opportunities for guidance and critical examination of their work. Prerequisite: Completion of General Education English requirement. Fall, annually.

ENG. 203: THE CRAFT OF FICTION 3 s.h.

The course provides extensive practice in the writing of short narrative fiction. Student work is subjected to intensive group criticism. Course standards roughly approximate those of commercial fiction editors. Prerequisite: Eng. 201 or 202 or permission of instructor based on examination of writing samples. Spring, even-numbered years.

ENG. 204: THE CRAFT OF POETRY 3 s.h.

This course is designed to provide the advanced writer intensive practice in the writing of poetry. A significant portfolio of high-quality poetry is expected of each participant by the end of the course. Prerequisite: Eng. 201 or 202 or permission of instructor based on examination of writing samples. Spring, odd-numbered years.

ENG. 206: BUSINESS WRITING 3 s.h.

This course is designed to meet the specific needs of those students whose skills in written communications are oriented toward the world of business. Prerequisite: satisfactory completion of or exemption from the General Education English requirement. Each semester.

ENG. 209: SPECIAL TOPICS IN LITERATURE 3 s.h.

This course will focus on themes and topics of universal and/or current interest as embodied in literature. The special subject of each semester's offerings will be announced in pre-registration. It is suitable for both English and non-English majors and may be taken up to three times for credit, provided that different topics are offered. Each semester.

ENG. 210: THE MODES OF LITERATURE 3 s.h.

This introductory course in literature is a study of different genres from the perspective of

a particular view of life reflected by literary modes (Comic, Tragic, Heroic, Satiric). Each semester.

ENG. 221: ENGLISH LITERATURE: THE BEGINNINGS TO 1800 3 s.h.

First part of a survey study beginning with the Beowulf poem and extending through the works of such figures as Chaucer, Spenser, Shakespeare, Milton, Pope, and Swift. Fall, annually.

ENG. 222: ENGLISH LITERATURE: 1800 TO THE PRESENT 3 s.h.

Second part of survey study including the works of such major writers as Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Hardy, Yeats and Eliot. Spring, annually.

ENG. 230: CONTEMPORARY BLACK AMERICAN LITERATURE — 1910 TO THE PRESENT 3 s.h.

This course is designed to give insight into the Black experience through the reading and discussion of the works of Black writers who have made significant contributions to literature. Offered when faculty available.

ENG. 252: INTRODUCTION TO THE ENGLISH LANGUAGE 3 s.h.

This introductory course in language deals generally with the nature of language and specifically with the structures of modern English, its regional and social varieties, and certain highlights of its historical development. Each semester.

ENG. 253: ENGLISH GRAMMAR AND USAGE 3 s.h.

This course is devoted, first, to an intensive study of traditional English grammar, and second, to an introduction to transformational grammar. Each semester.

ENG. 301: MEDIEVAL LITERATURE 3 s.h.

Examination of works by such major figures as the Pearl Poet, Gower, Chaucer, and Malory. On demand.

ENG. 303: SIXTEENTH CENTURY PROSE AND POETRY 3 s.h.

Examination of the non-dramatic literature of the sixteenth century focusing upon Sidney, Spenser, and Shakespeare. On demand.

ENG. 305: STUDIES IN SEVENTEENTH CENTURY ENGLISH LITERATURE 3 s.h.

Literary exploration of works by such figures as Bacon, Browne, Jonson, Donne, Herbert, Marvell, and Milton. On demand.

ENG. 307: STUDIES IN EIGHTEENTH CENTURY ENGLISH LITERATURE 3 s.h.

Critical examination of the works of such representative writers as Dryden, Pope, Swift, Boswell, Johnson, and Goldsmith. On demand.

ENG. 309: ENGLISH ROMANTIC LITERATURE: 1789-1832 3 s.h.

The major works of Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries are considered and related to the intellectual, political, and social currents of the time. On demand.

ENG. 311: STUDIES IN NINETEENTH CENTURY ENGLISH LITERATURE 3 s.h.

Intensive examination of works by such representative writers as Carlyle, Newman, Tennyson, Browning, Arnold, and Morris. On demand.

ENG. 320: STUDIES IN 19th CENTURY AMERICAN FICTION 3 s.h.

Analysis and discussion of works by such representative writers as Poe, Hawthorne, Melville, Howells, Crane, and Norris. Each semester.

ENG. 322: STUDIES IN 20TH CENTURY AMERICAN FICTION 3 s.h.

Critical reading and discussion of works by such figures as Dreiser, Hemingway, Faulkner, Mailer, Bellow, and Barth. Each semester.

ENG. 332: NINETEENTH CENTURY BRITISH NOVEL 3 s.h.

This course offers an opportunity to explore the English novel from Austen to Hardy. Nine or ten novels are studied with selections from: Austen, Scott, Eliot, Dickens, Thackeray, Disraeli, Meredith, Trollope, the Brontes, Gaskell. No prerequisite; however, one semester of English literature survey (Eng. 221 or Eng. 222) is recommended. Spring, annually.

ENG. 333: TWENTIETH CENTURY BRITISH NOVEL 3 s.h.

This course is an in-depth study of the modern British novel from its beginnings in the late nineteenth century to the present. Nine or ten novels are intensely examined, with selections from such authors as: Hardy, Conrad, Wilde, Lawrence, Joyce, Forester, V. Woolf, A. Huxley, Orwell, Green. No prerequisite; however, one semester of English literature survey (Eng. 221 or Eng. 222) recommended. Fall, annually.

ENG. 339: SHORT FICTION OF THE TWENTIETH CENTURY 3 s.h.

This course concentrates on the developments in the short story of the twentieth century. Readings are drawn from such modern writers of wide reputation as Kafka, Joyce, Faulkner, Camus, and Lagerkvist. Each semester.

ENG. 341: TWENTIETH CENTURY POETRY 3 s.h.

Explication and discussion of works by such writers as Yeates, Frost, Eliot, Auden, Roethke and Lowell. On demand.

Eng. 343: MODERN DRAMA 3 s.h.

A comprehensive view of the best dramatic literature of the modern American and British theater since 1890 is presented through lectures, discussion, and experiences related to the contemporary stage. Spring, annually.

ENG. 345: ENGLISH DRAMA 3 s.h.

Critical analysis of selected works by dramatists in a particular age; e.g., the Restoration Period. On demand.

ENG. 385: AMERICAN POETRY TO 1900 3 s.h.

This course is a survey of major American poets from Anne Bradstreet and Edward Taylor to Emily Dickinson. Fall, annually.

ENG. 412: SHAKESPEARE I 3 s.h.

Study and discussion of problems of style, characterization, and motivation in Shakespeare's experimental and maturing comedies, chronicle and Roman plays, and tragedies. Plays to be selected from the first two periods of Shakespeare's creative production. Fall, annually.

ENG. 413: SHAKESPEARE II 3 s.h.

Study and discussion of problems of style, characterization, and motivation in Shakespeare's mature comedies, Roman plays, tragedies, and romances. Plays to be selected from the last two periods of Shakespeare's creative production. Spring, annually.

ENG. 455: CRITICISM 3 s.h.

The course is a historical study of literary criticism and aesthetic theory with emphasis upon modern trends. On demand.

ENG. 456: ENGLISH HONORS SEMINAR 3 s.h.

Devoted to intensive study of selected writers and their works, the seminar is designed to offer excellent students opportunities for advanced and unusually challenging study in literature. Admission by departmental invitation. Offered when faculty available.

ENG. 457: INTRODUCTION TO LINGUISTICS 3 s.h.

This course presents the essentials of descriptive and contemporary linguistics systems. An introduction to psycholinguistics is provided in conjunction with studies in transformational grammar. Fall, annually.

ENG. 458: LINGUISTIC HISTORY OF THE ENGLISH LANGUAGE 3 s.h.

The history of the English language; a study of its origins and changes in structure, usage, pronunciation, spelling, vocabulary, and meaning. Spring, annually.

ENG. 460: INDEPENDENT STUDY 1-6 s.h.

This course permits students to explore an area of special interest in the English language or its literature. Students must develop a plan of study, secure the approval of a member of the English faculty willing to supervise the project, and submit the plan to the department chairperson. Maximum credits — 6. Prerequisite: junior or senior standing.

ENG. 461: WRITERS' WORKSHOP 3 s.h.

The Clarion Writer's Workshop provides an opportunity for students of writing to work with professionals in a congenial give-and-take atmosphere of the workshop situation. Visiting writers and/or coaches of writing will be in residence to work with students who wish writing experience in a variety of modes. Summers only.

ENVIRONMENTAL STUDIES

ENVIR. ST. 401: ENVIRONMENTAL PROBLEMS IN SOCIETY 3 s.h.

Interdisciplinary study of how the human species and their social institutions interact with the physical and biological systems of the environment. Fall, annually.

ENVIR. ST. 475: FIELD NATURAL HISTORY 3 s.h.

Competencies in biology, meteorology, geology, and astronomy are explored. Emphasis is placed on developing competencies which will be valuable in teaching Environmental (Outdoor and Conservation) Education. For non-science majors. Prerequisites: Upper division standing. Spring, annually.

NOTE: For additional courses related to Environmental Education certification endorsement, see Art 314, Ed. 401, and El. Ed. and Ed. 403.

FRENCH

In addition to courses listed below, students of French have an opportunity to study for a summer, a term, or an entire academic year in France and/or Canada.

FR. 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments on the European intellectual scene will be covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject of each semester offering will be announced in pre-registration. Open to all students of the college without pre-requisites and may be taken up to three times for credit provided that different topics are offered. Course is taught in the English language. On demand.

FR. 151: FRENCH I (ELEMENTARY) 3 s.h.

Essentials of grammar with emphasis on aural comprehension and oral expression. Fall, annually.

FR. 152: FRENCH II (ELEMENTARY II) 3 s.h.

Continuation of French 151, with increasing emphasis on graded reading material. Prerequisite: French 151 or consent of the instructor. Spring, annually.

FR. 153: ELEMENTARY FRENCH CONVERSATION 3 s.h.

Conversational practice, with extensive oral drill on grammatical patterns. Designed for those students who have met the prerequisites for French 251 but are lacking in aural-oral proficiency. May be taken concurrently with French 251. On demand.

FR. 251: FRENCH III (INTERMEDIATE I) 3 s.h.

Systematic review of basic grammar; graded readings, conversation, translation, and composition on selected topics. Prerequisite: French 152 or two years of high school study and/or a satisfactory placement test score. Fall, annually.

FR. 252: FRENCH IV (INTERMEDIATE II) 3 s.h.

Intensive reading of selected works; outside reading, with oral and/written reports. Prerequisite: French 251 or a satisfactory placement test score. Spring, annually.

FR. 255: FRENCH CIVILIZATION I 3 s.h.

A survey of French geography, history, literature, and culture designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful, and integral part of a great civilization. Prerequisite: French 252 or four years of high school study and/or a satisfactory placement test score. Required of French majors. Fall, annually.

FR. 256: FRENCH CIVILIZATION II 3 s.h.

Continuation of French 255, which is prerequisite. Required of French majors. Spring, annually.

FR. 260: THE FRENCH SHORT STORY 3 s.h.

A study of representative short stories of the nineteenth and twentieth centuries. All readings and discussions in French. Fall, annually.

FR. 300: FRENCH LITERATURE IN TRANSLATION 3 s.h.

A study of representative French literary works, with particular emphasis on the characters and ideas which have influenced both French and other literatures. The course is conducted in English; no knowledge of French required; no prerequisites. Offered when faculty available.

FR. 351: ADVANCED FRENCH GRAMMAR AND COMPOSITION 3 s.h.

Intensive oral and written drill with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-French translation, free composition, and conversation on everyday topics. Prerequisites: French 255 and 256 or one literature course. Fall, annually.

FR. 353: THE MODERN FRENCH DRAMA 3 s.h.

French drama from the 1890's to the present day. Playwrights principally treated are Maeterlinck, Claudel, Cocteau, Giraudoux, Anouilh, Sartre, Camus, Beckett, and Ionesco. Fall, annually.

FR. 354: THE MODERN FRENCH NOVEL 3 s.h.

A study of seven major French novelists of the 20th Century; Proust, Gide, Malraux, Mauriac, Sartre, Camus and Bernanos. Spring, annually.

FR. 355: FRENCH ROMANTICISM 3 s.h.

A study of French Romanticism from Chateaubriand to the Revolution of 1848. Major figures: Chateaubriand, Stendhal, Balzac, and Hugo. Spring, annually.

FR. 356: FRENCH POETRY FROM BAUDELAIRE TO SURREALISM 3 s.h.

A survey of the major trends in French poetry from Baudelaire to the early 20th Century, particularly Baudelaire, Rimbaud, Verlaine, Mallarmé and Valéry. Offered when faculty available.

FR. 357: THE FRENCH REALISTIC NOVEL 3 s.h.

A study of French realism and naturalism from the Revolution of 1848 to 1900. Major figures: Balzac, Flaubert, Zola, and Daudet. Offered when faculty available.

FR. 358: THE LITERATURE OF THE AGE OF ENLIGHTENMENT 3 s.h.

Readings of essays, drama, and fiction of the 18th Century. Major figures: Montesquieu, Voltaire, Diderot, and Rousseau. Offered when faculty available.

FR. 359: THE LITERATURE OF THE CLASSICAL AGE 3 s.h.

Classical French philosophy, drama, and poetry: Corneille, Racine, Molière, Pascal, Descartes, La Fontaine. Offered when faculty available.

FR. 451: SUPERVISED READINGS IN FRENCH LITERATURE 3 s.h.

As the title suggests, the course is devoted to selected readings determined in relation to the needs and interests of the individual major. On demand.

GENERAL STUDIES

Courses carrying the G.S. label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as Personal Development and Life Skills under general education, or may with departmental approval be substituted for required courses in some majors.

G.S. 100: COLLEGE READING/STUDY SKILLS 2 s.h.

This course develops the reading/study skills required at the college level. Students will be helped to organize study plans according to the purpose of the assignment and the nature of the materials. Emphasis will be placed on applying these skills to courses students are currently studying. No prerequisites. Each semester.

G.S. 110: THE STUDENT IN THE COLLEGE 3 s.h.

This course is designed to (1) enable the freshman student to explore and understand himself/herself as a developing adult interacting in a higher educational environment; (2) identify and/or utilize campus and community resources that will enhance his/her academic program; (3) develop strategies to facilitate the learning process; and (4) apply those strategies in a practical manner in order to build upon a resource base for academic skill transference. Note: This course is designed for freshman students only and will be a general elective under Personal Development and Life Skills. Each semester.

G.S. 123: INTRODUCTION TO LOCATING AND ORGANIZING INFORMATION 3 s.h.

Study of information sources and information organization: methods for surviving the information explosion. Recommended as an elective for non-library science students. Not creditable toward library science specialization. On demand.

G.S. 220: HUMAN SEXUALITY 3 s.h.

A basic course in self-understanding. The student is given the opportunity to be informed on (a) the physical, psychological, ethical, social, and legal components of sexuality as they relate to attitudes toward self and others, (b) the roles involved in being male or female; (c) relationships as they are affected by attitudes, and (d) the responsibilities of such relationships. Each semester.

G.S. 222 CREATIVE PROBLEM SOLVING 3 s.h.

An investigation of the elements of solving a variety of problems, beginning with closed problems such as puzzles or cryptograms, and progressing through simple games and complex games to the complexities of open ended problems of personal and political life. Emphasis will be on development of proficiency in dealing with new situations and techniques through actual practice. No prerequisites. Each semester.

G.S. 225: HUMAN GENETICS AND SOCIETAL PROBLEMS 3 s.h.

Technological and medical advances pose serious threats to the quality of man's genetic future. The relationship between major advances in genetic knowledge and their significance, both immediate and potential, will be presented and discussed. The medical and social benefits and risks of large scale genetic screening, genetic counseling and prenatal diagnosis with abortion will be thoroughly explored. The theoretical and practical possibilities of genetic engineering will be considered in the light of contemporary human values. A paper on some aspect of societal problems on human genetics will be required. This course will not meet the genetics requirement for a biology major. Prerequisite: Basic Biology or permission of the instructor. Alternate years on demand.

G.S. 240: PERSONAL FINANCE 3 s.h.

Major aspects of personal financial management including budgeting of income and expenditures, transactions and relations with banks, and other lending institutions, insurance and retirement plans, home ownership, personal taxes, savings and investment plans. Alternate years on demand.

G.S. 242: YOU AND THE LAW 3 s.h.

A survey of the major fields of law with an emphasis on historical development, basic legal principles, legal theory and procedure, and their relation to the individual. Each semester.

G.S. 250: THE LIFE AND MINISTRY OF JESUS 3 s.h.

A study of the life and ministry of Jesus in the light of modern contemporary biblical scholarship. Sophomore standing. Alternate years on demand.

G.S. 257: EUROPEAN CULTURES I 3 s.h.

See cross-listing under GER. 257.

G.S. 258: EUROPEAN CULTURES II 3 s.h.

See cross-listing under GER. 258.

G.S. 330: PROBLEMS AND PROSPECTS IN THE INNER CITY 3 s.h.

A multi-perspective examination of the interrelationship between the inner-city school and minority communities and the urban setting, characteristics of the minority student, the dynamics of the school structure, and racism. Particular emphasis will be given to an analysis of the complexities of the urban classroom, teacher roles, and strategies for change. The course will emphasize a humanistic approach to these problems. Offered when faculty available.

G.S. 411: SCIENCE AND SOCIETY 3 s.h.

See cross-listing under CHEM. 211.

GEOGRAPHY AND EARTH SCIENCE

NOTE: Geography courses carry social science credit only; Earth science courses carry natural science credit only.

E.S. 111: BASIC EARTH SCIENCE 3 s.h.

A survey of the Earth Sciences including Earth-space relations, Earth motions, development of land forms, weather and climate, soils and related vegetation, water as a resource of the land, oceans. Emphasis is on the lithosphere (mountain building and erosion) and the atmosphere. Called Basic Physical Geography in older catalogs. Each semester.

GEOG. 130: INTRODUCTION TO CULTURAL GEOGRAPHY 3 s.h.

A geographic study of man's interaction with the global environment and resulting humanized, cultural landscapes. Students examine related problems of population and settlement, the origin and diffusion of culture elements, levels of culture, agricultural and industrial complexes, and their impact upon our deteriorating environment. Each semester.

E.S. 200: SOLAR SYSTEM ASTRONOMY 3 s.h.
(E.S. 353: DESCRIPTIVE ASTRONOMY)

The course topics include the motions of the Earth, moon, and the planets, and their effects on the appearance of the sky; the nature of the sun and the planets; the instruments of the astronomer and the role that the history of astronomy played in the development of our understanding of the sky. The course also includes constellation identification through the use of the planetarium. Each semester.

E.S. 201: STELLAR ASTRONOMY 3 s.h.

The objectives of this course are to study man's understanding of the nature, formation and evolution of those celestial objects that lie beyond the solar system. Topics included are stellar properties and spectra, stellar evolution, special stars and star systems, the milky way and other galaxies, cosmology and cosmogony. The planetarium is used for constellation study and the development of co-ordinate systems. Spring, annually.

GEOG. 251: ECONOMIC GEOGRAPHY 3 s.h.

The production, exchange, and use of the basic commodities of the world; the relationship between the physical factors and economic conditions and the patterns of major economic activities, world trade and trade routes; economic landscapes; problems of economic development. Recommended for majors in economics, history, and political science. Every other year.

E.S. 252: PHYSICAL GEOLOGY 3 s.h.

A study of the earth, including minerals and rocks, and the processes, both constructional and destructional, which have shaped it since it was formed. Constructional processes include volcanism, mountain building, and sedimentation. Destructional processes include the erosional activity of streams, glaciers, ground water, waves, and wind. In connection with these topics, an effort is made to acquaint the student with the methods and work of geologists and with some of the research at the frontiers of geology. The course includes a field trip into local areas. No prerequisites. Each semester.

E.S. 253: LAND FORMS 3 s.h.

A study of the physical forces that sculpture and modify the landforms of the earth, including chiefly weathering, streams, glaciation, and shore processes. Some preliminary work on topographic and geologic maps and rocks is included. Called Geomorphology in older catalogs. Prerequisite E.S. 252. Offered annually.

GEOG. 254: CONSERVATION OF NATURAL RESOURCES 3 s.h.

The use and conservation of the nation's resources of water, land forest, wildlife, minerals, power, and human resources. Each semester.

GEOG. 255: TRADE AND TRANSPORTATION 3 s.h.

A geographic inquiry into world-wide forces of supply and demand and related transport modes and media. The central producer and service functions of population centers; world trade patterns of commodities, economic blocs, stages of economic development; and problems related to the economic interdependence of regions and nations. A course based on concepts learned in Economic Geography (Geog. 251). Every other year.

GEOG. 256: GEOGRAPHY OF PENNSYLVANIA 3 s.h.

A regional analysis of Pennsylvania, emphasizing man's cultural and economic response to environmental factors. Special attention is given to the resources of the state, analyzing their extent, their use, the need for well directed conservation, and the regional planning program of the Commonwealth. Offered occasionally.

GEOG. 257: GEOGRAPHY OF THE UNITED STATES AND CANADA 3 s.h.

An analysis of geographic problems, natural and cultural, of the U.S. and Canada; the synthesis of physical, biotic, economic, and social patterns and problems of geographic regions of North America; the interrelationship of North American political structures and their ties with the rest of the world. Each semester.

E.S. 258: HISTORICAL GEOLOGY 3 s.h.

The course deals with the interpretation of the record of the rocks and the geologic history of the earth with emphasis on North America. The physical history of the continent and the development of life, especially backboned forms, are discussed. Regional geologic history is illustrated by selected areas, notably Appalachia. Prerequisite: E.S. 252. Offered annually.

GEOG. 259: MAP INTERPRETATION 3 s.h.

A broad study of maps, charts, and atlases which is designed to develop an awareness of the great variety of maps available and to promote skill in their use. Emphasis is given to understanding map characteristics and properties needed for effective map usage, projections upon which maps are commonly drawn, co-ordinates and grid systems, map scales, aerial representations of relief, and statistical data. Prerequisite: Consent of instructor. Offered annually.

E.S. 260: MINERALS 3 s.h.

The identification, uses, physical and chemical properties, occurrence, origin, and crystallography of the common minerals. Called Mineralogy in older catalogs. Prerequisite: at least high school chemistry. Every other year.

E.S. 261: ROCKS 3 s.h.

The identification, occurrence and origin, classification, physical and chemical properties and uses of the common rocks. Includes a brief study of the important rock forming minerals. Called Petrology in older catalogs. Prerequisite: E.S. 252. Every other year.

E.S. 262: OCEANOGRAPHY 3 s.h.

A study of the physical properties, marine biology, chemistry, and geology of the oceans and to a minor extent, the role of the sea in the history, culture, and technical developments of man. Once annually.

E.S. 351: METEOROLOGY 3 s.h.

A systematic study of the atmosphere, analyzing the laws and underlying principles of atmospheric change. Students have the opportunity to become familiar with the common weather instruments, to observe and record weather data, to read and interpret weather maps, and to consider the problems of aviation growing out of atmospheric conditions. Offered annually.

GEOG 352 or E.S. 352: CLIMATOLOGY 3 s.h.

A systematic study of three major components of climatology. Physical aspects of the atmosphere are analyzed as a series of long-term weather phenomena. Regional characteristics of climate are studied on the basis of world-wide patterns. Applied aspects of climate demonstrate the inter-relationship and importance of both physical and regional climatology to man. Acceptable for social science or natural science credit. Prerequisite: E.S. 111 or E.S. 351. Every other year.

GEOG. 354: HISTORICAL GEOGRAPHY OF THE UNITED STATES 3 s.h.

The natural and cultural regions of pre-Columbian United States and the geography of settlement and regional development of the country to 1890. This course is very desirable for history majors. Every other year.

GEOG. 355: GEOGRAPHY OF THE SOVIET UNION 3 s.h.

This regional study deals with Russia's location, size, surface features, climate, vegetation, soils, mineral wealth, occupations, production, transportation, and government. Russia's future production and economic political influence are considered. Every other year.

GEOG. 356: GEOGRAPHY OF EUROPE 3 s.h.

A study of European landscapes and regions, which seeks to develop an understanding of the geographic basis of Europe's major economic and social problems. Emphasis is upon western Europe; the Soviet Union is not included in this course. Recommended for majors in history and social science. Every other year.

GEOG. 357: GEOGRAPHY OF ASIA 3 s.h.

A regional course stressing the interrelationship of the economic, social, and political life of the people with their spatial environment. Problems of over population, standards of living, natural resources, industry, and government are emphasized. The Soviet Union is not included in this course. Offered occasionally.

GEOG. 404: URBAN GEOGRAPHY 3 s.h.

A comparative study of the structural form and functioning of selected world cities from a geographic viewpoint, with insights into their origin and evolutionary patterns of institutional, commercial, industrial, and residential land use and linking transport-communication systems as dynamic processes of functional organization. Prerequisite: consent of instructor. Offered annually.

GEOG. 406: GEOGRAPHY OF INDUSTRIAL LOCATION 3 s.h.

A study of the locational factors of industry and the plant site evaluations. New trends in manufacturing location will be measured and mapped. Specific studies of selected industries will be utilized to give practical application to the subject matter. Prerequisite: consent of instructor. Every other year.

GEOG. 408: RECREATIONAL GEOGRAPHY 3 s.h.

A study of the nature and characteristics of outdoor recreation emphasizing the interrelationship of natural and cultural features to leisure time activities. Major aspects of the course will stress demand, supply, and economic concepts of outdoor recreation. Analysis will be made of management, legislation, policies and programs affecting current and future recreational areas and activities. Prerequisite: consent of instructor. Every other year.

GEOG. 410: URBAN, RURAL and REGIONAL PLANNING 3 s.h.

A study of the basic concepts associated with geographical planning within urban and rural areas as well as on a regional basis. Elements and theories of planning, methodologies and techniques of planning, design and implementation concepts of planning systems, and landscape design in relationship to planning systems will be an integral part of the course. Prerequisite: consent of instructor. Every other year.

E.S. 412: ENVIRONMENTAL GEOLOGY 3 s.h.

A study of the uses of geology in the solution of man's problems with his physical environment. Topics include hazardous geologic environments, mineral and energy resources, water supply, waste disposal and the uses of geology in urban and regional planning. Many examples are drawn from western Pennsylvania. Prerequisite: consent of instructor. Every other year.

GEOG. 451: CARTOGRAPHY I 3 s.h.

A systematic study of the basic concepts and components of thematic map making. Emphasis is placed upon familiarization with and utilization of drafting instruments and equipment essential to map design and construction. Techniques of photographic reproduction of student map projects will also be presented. Two lectures and three hours of laboratory weekly. Prerequisite: Geog. 259 or consent of instructor. Offered annually.

GEOG. 452: GEOGRAPHY OF LATIN AMERICA 3 s.h.

A comparative study of the geographical regions of Middle and South America. Latin American relations with the United States and the rest of the world are interpreted through an analysis of the economic, social, and cultural activities of man in relation to the physical factors of his environment. Offered occasionally.

GEOG. 453: GEOGRAPHY OF AFRICA 3 s.h.

A systematic and regional study of the continent of Africa. The major physical features of Africa are interrelated with African settlement and historical development. The economic and cultural characteristics of African countries are analyzed on a regional basis to include current political and social problems within each region. Offered occasionally.

GEOG. 454: POLITICAL GEOGRAPHY 3 s.h.

Geographic factors influencing the character, development, and functioning of political units, especially the national state. The internal area structure and external relations of nation states are studied as factors of political power. Natural, cultural, and ethnic regions of political areas are brought into focus, including core areas and capitals, dependent areas and colonies, communication lines necessary to maintain them. Points and zones of international conflict are connected with the practice of great power politics and with problems of world peace. Recommended for majors in history and political science. Every other year.

GEOG. 455: CARTOGRAPHY II 3 s.h.

A systematic study of the new dimensions of cartography in use today. Emphasis is placed upon the techniques used in the construction of three-dimensional maps and models of statistical surfaces, diagrams, cartograms, negative scribing, and color separation. Designing, programming, and constructing computer maps will also be a part of the course. Two lectures and three hours of laboratory weekly. Prerequisite: Cartography I and consent of instructor. Every other year.

GEOG. 456: AERIAL PHOTO INTERPRETATION 3 s.h.

A systematic study of aerial photographs for geographic investigations of physical and cultural features of the landscape; the application of remote sensing to topographic and planimetric map construction, agricultural and land use identification, landform study, and forestry. Prerequisite: consent of instructor. Every other year.

GEOG. 459: FIELD GEOGRAPHY 3 s.h.

A systematic study of the techniques essential to geographic field investigation. Emphasis is placed upon practical, first-hand experiences in the field where students learn the techniques and procedures of compass traversing, plane tabling, rural and urban land use surveying, and field research. Prerequisite: Cartography I and consent of instructor. Every third semester.

GERMAN

In addition to courses listed below, students of German have an opportunity to study for a summer, a term, or an entire academic year in Germany and/or Austria.

GER. 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments on the European intellectual scene will be covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject of each semester offering will be announced in pre-registration. Open to all students of the college without pre-requisites and may be taken up to three times for credit provided that different topics are offered. Course is taught in the English language. On demand.

GER. 151: GERMAN I (ELEMENTARY I) 3 s.h.

Essentials of grammar with emphasis on aural comprehension and oral expression and extensive use of the language laboratory. Fall, annually.

GER. 152: GERMAN II (ELEMENTARY II) 3 s.h.

Continuation of German 151, with increasing emphasis on graded reading material. Prerequisite: German 151 or permission of the instructor. Spring, annually.

GER. 251: GERMAN III (INTERMEDIATE I) 3 s.h.

Brief systematic review of basic grammar; graded readings, conversation, translation, and composition on selected topics. Prerequisite: German 152 or two years of high school study and/or a satisfactory placement test score. Fall, annually.

GER. 252: GERMAN IV (INTERMEDIATE II) 3 s.h.

Intensive reading of selected works; outside reading, with oral and/or written reports. Prerequisite: German 251 or a satisfactory placement test score. Spring, annually.

GER. 253: SCIENTIFIC GERMAN 3 s.h.

A study of scientific terminology and style, with extensive readings in various scientific fields. Prerequisite: German 251 or equivalent. Science and mathematics majors may substitute this course for German 252. Spring, annually.

GER. 254: COMMERCIAL GERMAN 3 s.h.

A study of commercial terminology and style, with extensive practice in the writing of business letters of various kinds. Prerequisite: Knowledge of elementary German. On demand.

GER. 255: GERMANIC CIVILIZATION I 3 s.h.

A survey of German geography, history, literature, and culture, designed to equip teachers with the materials and understanding necessary to the presentation of the languages as a rich, meaningful, and integral part of a great civilization. Prerequisite: German 252 or four years of high school study and/or satisfactory placement test score. Required of German majors. Fall, 1979.

GER. 256: GERMANIC CIVILIZATION II 3 s.h.

Continuation of German 255, which is prerequisite. Required for German majors. Spring, 1980.

GER. 257: EUROPEAN CULTURES I 3 s.h.

A presentation in English of Northern and Central European culture patterns, especially those of Scandinavia, the Low Countries, and the three German-speaking countries. Modern ways of life in state and economy, family and education, work and leisure, literature, theatre, art, architecture, and music. Points of contact with American culture and preparation for educational travel are stressed. Spring, 1981.

GER. 258: EUROPEAN CULTURES II 3 s.h.

Continuation of German 257, which is not necessarily prerequisite. Fall, 1979, 1981.

GER. 259: BASIC GERMAN CONVERSATION 3 s.h.

Practice in conversational patterns and development of useful proficiency for everyday situations and travel. May be taken concurrently with Ger. 252. On demand.

GER. 260: THE GERMAN SHORT STORY 3 s.h.

A study of representative *Novellen* of the nineteenth and twentieth centuries. All readings and discussions in German. Offered annually.

GER. 261: BUSINESS GERMAN 3 s.h.

An introduction to the world of business in the German speaking countries with special attention to industries represented in the U.S.A. Acquisition of basic vocabulary for business communication. Prerequisite: German 152. On demand.

GER. 300: GERMAN LITERATURE IN TRANSLATION 3 s.h.

A study of representative German literary works, with particular emphasis on the characters and ideas which have influenced both German and other literatures. The course is conducted in English; no knowledge of German required; no prerequisites. Offered when faculty available.

GER. 350: ADVANCED CONVERSATION AND INTERPRETATION 3 s.h.

Interpreting and translating skills, stressing everyday idioms and practical needs, especially for employment in government and industry. On demand.

GER. 351: ADVANCED GERMAN GRAMMAR AND COMPOSITION 3 s.h.

Intensive oral and written drill, with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-German translation, free composition, and conversation on everyday topics. Prerequisites: German 255 and 256 or one literature course. Fall, 1979.

GER. 352: SURVEY OF GERMAN LITERATURE THROUGH THE CLASSICAL AGE 3 s.h.

Study and discussion of the main trends of German thought and literary expression. Emphasis is placed upon the works of Goethe, Schiller, and Lessing. Offered occasionally, on demand.

GER. 353: THE MODERN GERMAN DRAMA 3 s.h.

German drama from the middle of the 19th Century to the present, covering representative writers of the Realist, Naturalist, and Expressionist movements, as well as selected contemporary writers. Offered occasionally, on demand.

GER. 354: THE MODERN GERMAN NOVEL 3 s.h.

The German novel of the last hundred years with emphasis on 20th Century writers as Thomas Mann, Franz Werfel, Hermann Hesse, et. al. Offered occasionally, on demand.

GER. 355: GERMAN ROMANTICISM 3 s.h.

The older and younger schools of German Romanticism (Jena, Berlin, and Heidelberg) with emphasis on the revival of folk poetry and consideration of influences upon American Romanticism. Representative authors: Hölderlin, Novalis, Arnim, and Brentano. Offered occasionally, on demand.

GER. 358: CLASSICAL GERMAN LITERATURE: GOETHE, SCHILLER AND LESSING 3 s.h.

Goethe's *Faust* and other great works of the Golden Age of German literature. Offered occasionally, on demand.

GER. 360: CONTEMPORARY GERMAN PROSE 3 s.h.

Recent literary and linguistic developments in German prose style. The short story and news media as materials for training in oral expression and stylistics. Offered occasionally, on demand.

GER. 361: GERMAN LYRIC POETRY 3 s.h.

The German lyric from Mörike, Hofmannsthal, Rilke, and George to the post-expressionist movement and contemporary poets such as Benn, Nelly Sachs, and Enzensberger. Offered occasionally on demand.

GER. 451: SUPERVISED READINGS IN GERMAN LITERATURE 3 s.h.

This course is devoted to selected readings determined in relation to the needs and interests of the individual major.

HEALTH AND PHYSICAL EDUCATION

The following courses are offered for fulfillment of the general education requirement for all students.

HPE 111: HEALTH EDUCATION 2 s.h.

Consideration of the physical and mental equipment of the individual and of the practical application of health knowledge and concepts in personal, family, community, and environmental living. Special emphasis is placed in the areas of mental health, drug abuse, human sexuality and marriage, and the major diseases and health problems confronting society. Each semester.

HPE 131:	BEGINNING SWIMMING	1 s.h.
HPE 132:	INTERMEDIATE SWIMMING	1 s.h.
HPE 230:	SENIOR LIFE SAVING	1 s.h.
HPE 231:	ADVANCED AQUATICS	1 s.h.
HPE 233:	SPRINGBOARD DIVING	1 s.h.
HPE 235:	CANOEING	1 s.h.
HPE 330:	WATER SAFETY INSTRUCTOR	1 s.h.
HPE 140:	ARCHERY	1 s.h.
HPE 141:	BADMINTON	1 s.h.
HPE 142:	BOWLING	1 s.h.
HPE 143:	GOLF	1 s.h.
HPE 144:	HANDBALL AND RACQUET PADDLEBALL	1 s.h.
HPE 145:	RACQUET PADDLEBALL	1 s.h.
HPE 146:	SKIING	1 s.h.

HPE 147: TENNIS 1 s.h.

HPE 148: WRESTLING AND WEIGHT TRAINING 1 s.h.

HPE 151: BASKETBALL (MEN'S RULES) 1 s.h.

HPE 152: BASKETBALL (WOMEN'S RULES) 1 s.h.

HPE 153: VOLLEYBALL (MEN'S RULES) 1 s.h.

HPE 154: VOLLEYBALL (WOMEN'S RULES) 1 s.h.

HPE 161: MODERN DANCE 1 s.h.

HPE 171: GYMNASTICS FOR MEN 1 s.h.

HPE 172: GYMNASTICS FOR WOMEN 1 s.h.

HPE 173: RHYTHMIC GYMNASTICS 1 s.h.

In the above activity courses basic skills and fundamental techniques are taught. Etiquette, sportsmanship, strategy, rules, and officiating are included in the course content where applicable. On demand.

HPE 181: ADAPTED PHYSICAL EDUCATION 1 s.h.

A modified or corrective physical education course for those who by reason of illness or disability are unable to participate in the more vigorous forms of physical education activities. On demand.

HPE 182: POSTURE AND BODY MECHANICS 1 s.h.

An overall analysis of the factors involved in correct posture and body mechanics with individually prescribed exercise programs to meet personal needs. On demand.

HPE 185: PHYSICAL FITNESS AND CONDITIONING 1 s.h.

This course enables students to develop a fitness and conditioning program to fit their individual needs through knowledge gained in areas such as nutrition, use of conditioning equipment, weight control, and fitness tests. On demand.

HPE 223: PHYSICAL EDUCATION FOR ELEMENTARY MAJORS 1 s.h.

A course especially designed for Elementary Majors with emphasis upon activities related to the elementary school. Required for all men and women majoring in Elementary Education except for those students with an area of specialization in Health and Physical Education. Each semester.

The following courses are offered for fulfillment of an area of specialization in Health and Physical Education for Elementary Education Majors.

HPE 112: HEALTH EDUCATION IN THE ELEMENTARY SCHOOL 2 s.h.

A course based on the premise that health education is not a subject but rather a way of living. Special emphasis placed upon the development of sound principles and procedures in meeting the different needs of the child in relation to the school, home, and community. Elementary Health courses of study form the basic point from which each student explores content and methods for making a sound total health education program. The interrelationship of health education with all fields in the modern elementary program is a focal point of attention. On demand.

HPE 113: PRINCIPLES OF HEALTH EDUCATION & PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL 2 s.h.

An orientation course designed to provide a study of Health Education and Physical Education in the Elementary School. Consideration is given to history, values, objectives, and recent emphasis. On demand.

HPE 210: ANATOMY OF LOCOMOTION 3 s.h.

A study of the human body with particular emphasis on the systems of the body necessary for movement as related to scientifically sound and practical programs of physical education. On demand.

HPE 224: ELEMENTARY SCHOOL ACTIVITIES I 1 s.h.

The analysis and practical application of basic movement patterns and skills. Physical fitness, exercise, stunts and tumbling, and self-testing activities are studied as a part of this course. This course is to be substituted for HPE 223 by elementary education majors selecting physical education as their area of specialization. On demand.

THEORY AND TECHNIQUES OF COACHING

HPE 238: SWIMMING AND GOLF COACHING 2 s.h.

Spring, odd numbered years

HPE 247: GYMNASTICS AND TENNIS COACHING 2 s.h.

Fall, odd numbered years.

HPE 248: WRESTLING AND BASEBALL COACHING 2 s.h.

Spring, odd numbered years.

HPE 250: FOOTBALL COACHING 2 s.h.

Fall, even numbered years.

HPE 251: BASKETBALL COACHING 2 s.h.

Fall, odd numbered years.

HPE 254: VOLLEYBALL AND TRACK & FIELD COACHING 2 s.h.

Spring, even numbered years.

This sequence of courses is to promote development of skills, acquisition of knowledge, and understanding of theories as they relate to specific sports.

HPE 310: ADAPTED PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL 2 s.h.

The study and application of the modified or restricted activities to be provided at all grade levels for the child who may not safely participate in the regular instructional class period. Prerequisite: HPE 210. Fall, annually.

HPE 313: ORGANIZATION & ADMINISTRATION OF HEALTH EDUCATION & PHYSICAL EDUCATION 3 s.h.

Procedures of program building in Health Education and Physical Education; curricular and extra-curricular, facilities and equipment, class procedures and legal liability. On demand.

HPE 323: MODERN CURRICULUM AND METHODS 1 s.h.

A course coordinating theory and practice in the teaching of Physical Education. Methods and materials applicable to unit type teaching, to the integrated classroom, and to more traditional formations of the school curriculum are developed. Emphasis is placed on selection, organization, **teaching,** and evaluation of experiences and materials for elementary school children in the area of Physical Education. Each semester.

HPE 324: ELEMENTARY SCHOOL ACTIVITIES II 2 s.h.

Games of low organization, team games, individual and dual sports, aquatics, rhythms

dance, classroom and recreational activities as they add their unique contribution to the physical and cultural development of the elementary school child. Emphasis on progression, skill development, and safety for each grade level. Spring, odd numbered years.

HPE 325: CAMPING AND OUTDOOR RECREATION 2 s.h.

Practical experiences in the basic skills necessary for successful camping experience and their application for the effective organization of the elementary school camping program as it relates to and integrates with the total outdoor education movement. Spring, annually.

HPE 408: FOUNDATION OF ATHLETICS I* 3 s.h.

An investigation and understanding of the interactional impact of sport upon the behavior of the athlete and coach, and their relationship with the culture and society. Fall, annually.

HPE 409: KINESIOLOGICAL FOUNDATIONS OF COACHING* 3 s.h.

A study of the mechanical movements used in the execution of skills and techniques of the various sports. These movements are identified and analyzed for their acceptance, correction, or improvements as they relate to the teaching of each sport. Fall, annually.

HPE 411: PHYSIOLOGICAL FOUNDATIONS OF COACHING* 3 s.h.

This course is a study of the scientific theories and principles underlying the role of flexibility, strength, muscular endurance, and cardio-respiratory endurance in training and conditioning for sports. Spring, annually.

HPE 412-512: SCIENTIFIC BASES OF ATHLETIC TRAINING* 3 s.h.

The application of scientific principles taken from the various science fields of anatomy, physiology, physics, and psychology to the field of athletic training and conditioning. Prerequisites: HPE 210 and 211. Spring, annually.

HPE 413: CURRENT TRENDS IN HEALTH EDUCATION AND PHYSICAL EDUCATION 1 s.h.

Designed to aid the mature student in identifying, analyzing, and evaluating recent developments and critical issues in Health Education, Physical Education, and Recreation. On demand.

HPE 414: THE FIRST AID AND SAFETY 2 s.h.

The responsibilities and duties of the teacher in the development and teaching of programs in first aid and safety that are related to the students' school and community environment. The American Red Cross Standard First Aid course will be included. Each semester.

HISTORY

HIST. 111: HISTORY OF ANCIENT AND MEDIEVAL CIVILIZATION 3 s.h.

The course includes a survey of prehistoric cultures and civilization from its historical beginning to 1500. Its purpose is to present a knowledge of the origins of the broad social, political, intellectual, and economic movements of the past from which the student may gain an understanding of civilization today. Each semester.

HIST 112: HISTORY OF MODERN CIVILIZATION 3 s.h.

A study of significant movements and events from 1500 to the present. The course emphasizes the interrelationships between cultures of various regions of the world, with

*Courses leading to certification as Athletic Coach.

major attention to the influence Western European development has exerted on other areas. Each semester.

HIST. 180: PROBLEMS IN WESTERN CIVILIZATION 3 s.h.

This course utilizes an investigative approach to problems in the evolution of Western history. Such "problems" as the rise of nationalism, revolution, the growth of capitalism, etc., will be investigated. A different "problem" will be examined each time the course is offered. Students will be encouraged to develop specific focuses within the problem area. Special sections of English 111 and Speech 113 must be taken in conjunction with this course. On demand.

HIST. 210: THE BLACK EXPERIENCE: A HISTORICAL AND CULTURAL APPROACH TO AFRICA AND AMERICA 3 s.h.

This course is an interdisciplinary survey of the black experience in Africa and America. It is based on a series of lectures by visiting scholars coordinated by reading assignments, field trips, and class discussions. Offered irregularly.

HIST. 213: HISTORY OF THE UNITED STATES 3 s.h.

A survey of United States history from the period of exploration to the present. Each semester.

HIST. 215: EXPLORING THE AMERICAN SOCIAL FABRIC 3 s.h.

A topical approach to the study of American history, permitting students to pursue an in-depth examination of selected problems. No prerequisites. On demand.

HIST. 220: TOPICS IN NON-WESTERN AND THIRD WORLD HISTORY 3 s.h.

A topical approach to the study of non-western and Third World history and culture, permitting students to examine selected problems. Annually.

HIST. 235: TOPICS IN EUROPEAN HISTORY 3 s.h.

A study of the major social, economic, and political ideas of Europe in the Eighteenth, Nineteenth, and Twentieth Centuries. On demand.

HIST. 254: HISTORY OF LATIN AMERICA: COLONIAL PERIOD 3 s.h.

This course surveys the development of Colonial Latin America from its discovery to 1825. The economic, social, political, and cultural development receives detailed attention. Fall, annually.

HIST. 255: HISTORY OF LATIN AMERICA: NATIONAL PERIOD 3 s.h.

The main emphasis of this course is on the history of the Latin American countries since 1825. The economic, social, political, and cultural development receives detailed attention. The course also surveys U.S.-Latin American relations. Spring, annually.

HIST. 256: HISTORY OF PENNSYLVANIA 3 s.h.

A study of the founding and development of Pennsylvania from its colonial beginning to the present time. Emphasis is placed on the social, economic, and political development in the different periods of its history. Special attention is given to the diversity of the people, their institutions and problems, and the growth of Pennsylvania to a leading position in our modern industrial world. Fall, annually.

HIST. 286: HISTORY OF MODERN CHINA AND JAPAN 3 s.h.

A historical study of the transformation which has taken place in China and Japan in modern times as a result of an external impact as well as forces within far Eastern societies. On demand.

HIST. 310: HISTORY OF THE ANCIENT GREEKS 3 s.h.

The development of the Greek peoples from their first penetration into the Mediterranean Area until their governments passed under Roman administration. Every third semester.

HIST. 311: HISTORY OF ROME TO A.D. 565 3 s.h.

The History of the Romans from the context of the founding of their city through the development of their unique concept of government and civilization during their Republic and Empire until the full emergence of the Byzantine culture. Every third semester.

HIST. 320: MEDIEVAL HISTORY 3 s.h.

A study of the Middle Ages from the fall of Rome to 1500. Prerequisite: Hist. 111 or consent of the instructor. Spring, alternate years.

HIST. 330: EUROPE DURING THE RENAISSANCE 3 s.h.

A survey of the course of Europe's development from the thirteenth through the sixteenth centuries with emphasis on political, social, economic, and cultural trends and achievements and the problems of historical interpretation they pose. Prerequisite: Hist. 112 or its equivalent. Fall, alternate years.

HIST. 335: EUROPE DURING THE REFORMATION 3 s.h.

A survey of Europe's development during the sixteenth and seventeenth centuries with particular attention to the role of religion and religious issues and to the interaction between religion and political, economic, and cultural affairs. Fall, alternate years.

HIST. 340: HISTORY OF EUROPE FROM 1660 TO 1814 3 s.h.

A study of the social, economic, political, religious, and cultural experiences of the European people from the Age of Louis XIV through the Napoleonic Wars. Prerequisite: Hist. 112 or its equivalent. Fall, alternate years.

HIST. 345: HISTORY OF EUROPE FROM 1815 TO 1924 3 s.h.

A study of the social, economic, political, religious, and cultural experiences of the European people from the Congress of Vienna to the death of Lenin. Prerequisite: Hist. 112 or its equivalent. Spring, alternate years.

HIST. 354: CONTEMPORARY AMERICAN HISTORY 3 s.h.

A study of the political, social, and economic developments and foreign affairs of the U.S. from World War I to the present. Spring, annually.

HIST. 355: ECONOMIC HISTORY OF THE UNITED STATES 3 s.h.

A survey of the economic history of the United States and a study of the relationship of the economic, political and social factors in the development of America. Fall, annually.

HIST. 356: CONTEMPORARY EUROPEAN HISTORY 3 s.h.

In this course the diplomatic background, the testing of the alliances, World War I, and the results of the Treaty of Versailles are examined. Europe is placed in its proper setting of world significance. Fall, annually.

HIST. 357: HISTORY OF ENGLAND TO 1689 3 s.h.

A comprehensive course in the History of England to the time of the Glorious Revolution. Fall, annually.

HIST. 358: HISTORY OF ENGLAND SINCE 1689 3 s.h.

A comprehensive course in the cultural, political, and economic history of modern England. Spring, annually.

HIST. 359: HISTORY OF THE AMERICAN FRONTIER 3 s.h.

This course includes the geographic continuity of westward expansion, and the significance of the frontier in the development of the U.S. Spring, annually.

HIST. 361: HISTORY OF AMERICAN SCIENCE AND TECHNOLOGY 3 s.h.

This course places emphasis on the historical survey of the development of American science and technology and of their effect on the growth of America's culture. America's contributions to the rest of the world along the lines of science and technology are stressed. On demand.

HIST. 362: HISTORY OF AFRO-AMERICA 3 s.h.

A survey of Afro-American history from its African beginnings to contemporary times (1969). Special emphasis will be placed on tracing the role of the Negro in American History in order to develop a better perspective of his contribution to the American way of life. A close study will be made of the junctures of American History where the problems of the Afro-American took on new meaning in American growth. Fall, annually.

HIST 365: RUSSIA TO THE TWENTIETH CENTURY 3 s.h.

Russia's development from the early centuries of the Christian era to the present century. Stress on the period beginning with the reign of Peter the Great with special attention to the nineteenth and early twentieth centuries as background for the Soviet period. Prerequisite: Hist. 112 or its equivalent. Fall, annually.

HIST. 366: RUSSIA IN THE TWENTIETH CENTURY 3 s.h.

Russia's development in the twentieth century with major attention to Communism in theory and practice and emphasis on the role of the Soviet Union in world affairs. Prerequisite: Hist. 112 or its equivalent. Spring, annually.

HIST. 370: HISTORY OF THE NEAR EAST 3 s.h.

This survey is an area study of the early classical era by way of an advanced intensive exploration of the civilization in the Mediterranean East and Middle East. After an introduction to the religion of Judaism and Christianity in their political setting, the cultural contributions of the Semites, Greeks, and Romans are examined. The Islamic Age is stressed. Emphasis is placed upon modern identification of the countries that make this an explosive part of the world — Jordan, Israel, Lebanon, Iran, Iraq, Arabia, Syria, Egypt, Turkey. Their relationship to the great powers is given attention. Fall, annually.

HIST. 375: TRADITIONAL INDIA 3 s.h.

Examination of the historical development of Indian Civilization from its early origins to the coming of the Europeans, with emphasis on the classical period, religion, social organizations, and the ancient Hindu and Medieval Moslem periods. Fall, annually.

HIST. 376: MODERN INDIA — PAKISTAN 3 s.h.

Rise of the British power, its political, economic, and social impact; reaction to British rule; rise of Nationalism and reformist movements; social, political, and economic development since 1947. Spring, annually.

HIST. 385: NATIONALISM AND COMMUNISM IN SOUTHEAST ASIA 3 s.h.

Different systems of Western colonial rule, with major emphasis on territorial expansion, political administration, and economic patterns; reaction to alien rule, rise of nationalism, and social, economic, and political problems since independence. Spring, annually.

HIST. 400: CONTEMPORARY ASIA SINCE THE FIRST WORLD WAR 3 s.h.

An advanced elective course on the political and socio-economic changes in

contemporary Asia and the emergence of free states, with particular emphasis on attempts to create stable democratic regimes. On demand.

HIST. 405: THE HISTORY OF AMERICAN LABOR 3 s.h.

This course examines the history of the American working man and woman from the colonial period to the present. It examines not only the growth of the trade union movement and its socio-political and economic impact, but also the nature of the work performed by labor and the way laboring people have lived. Spring, annually.

HIST. 439: U.S. HISTORY, NATIONAL PERIOD, 1783-1860 3 s.h.

The development of the United States from the end of the Revolution to the Civil War. No prerequisites. Fall, alternate years.

HIST. 440: RISE OF INDUSTRIAL AMERICA AND THE SEARCH FOR ORDER UNITED STATES 1865-1919 3 s.h.

A study of economic, social, political, and cultural changes in American life from Reconstruction through World War I. No prerequisites. Spring, alternate years.

HIST. 451. DIPLOMATIC HISTORY OF THE UNITED STATES FROM THE AMERICAN REVOLUTION TO 1912 3 s.h.

This course is designed to examine patterns of realism and idealism in American diplomacy from the Revolution to the Era of T.R. and Taft. Attention will be given to diplomatic thought on concepts such as the national interest, the Monroe doctrine, manifest destiny, the balance of power, and the emergence of the United States as a world power. On demand.

HIST. 452: DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1912 3 s.h.

This course is designed to examine patterns of realism and idealism in American diplomacy from Woodrow Wilson to the present. Attention will be focused on diplomatic thought upon the issues of the national interest, World War I, Neutrality, World War II, Internationalism, the Cold War, and the United States response to Europe and new emerging powers. On demand

HIST. 453: TOPICS IN TWENTIETH CENTURY WORLD HISTORY 3 s.h.

The significance of events in the present century is brought out in this course by a study of the growth of capitalism, imperialism, totalitarianism, international jealousies, World War I and II, and the attempt of the family of nations to find world peace through international understanding. Spring, annually.

HIST. 454: THE BRITISH EMPIRE AND COMMONWEALTH OF NATIONS 3 s.h.

An advanced elective course on the formation and career of the British Commonwealth. On demand.

HIST. 456: SOCIAL AND INTELLECTUAL HISTORY OF THE U.S. TO 1865 3 s.h.

The major social and intellectual movements in the United States from 1607 to 1865. Emphasis is put on reading in primary sources. On demand.

HIST. 457: SOCIAL AND INTELLECTUAL HISTORY OF THE U.S. SINCE 1865 3 s.h.

The major social and intellectual movements in the United States from 1865 to present. Emphasis is put on reading in primary sources. On demand.

HIST. 458: ENGLISH CONSTITUTIONAL HISTORY 3 s.h.

A consideration of constitutional government in England from the beginning of English

history to the present. A study of governmental powers, political and judicial processes, and the relationships of liberty and authority to the individual living under the government is included. On demand.

HIST. 461: COLONIAL AMERICA 3 s.h.

A study of colonial history beginning with the European background of colonization and continuing through the American Revolution. Fall, annually.

HIST. 462: AMERICAN WESTWARD EXPANSION (1803–1950) 3 s.h.

This course traces the American westward movement through the trans-Mississippi West and includes the American move into the Pacific island area in the 19th and 20th centuries. Emphasis is placed on the explorations and successive penetrations of the Far West and the Pacific Island frontiers and the developments of the United States power position in the Pacific. The impact of this great move westward on American political, social, and economic institutions is studied in detail. Research papers required of students may fall in either the 10th or 20th century phase of the course. Spring, annually.

HIST. 463: CIVIL WAR AND RECONSTRUCTION 3 s.h.

This course is a basic study of the growth of sectional differences between North and South from 1820 to 1850. It further examines the failure of compromise efforts in the 1850's and the causes of secession. The war and the consequences of reconstruction policies to 1877 are traced in light of modern civil rights problems. Fall, annually.

HIST. 464: MINORITIES, PREJUDICE, AND BIGOTRY IN AMERICAN HISTORY 3 s.h.

A study of the nature and causes of prejudice in American History and a review of the impact of prejudice on American society. On demand.

HIST. 467: LATIN AMERICA AND ITS WORLD RELATIONS 3 s.h.

This course is a survey of Latin America's inter-relationships with other world areas. It includes Latin America's place in world politics, its position in the international economic sphere, and its society and culture in a world context. Special emphasis is placed on U.S.-Latin American relations. Prerequisite: Hist. 255 or sophomore standing. On demand.

HIST. 471: THE FRENCH REVOLUTION 3 s.h.

The Old Regime and its critics of the 18th century will be examined; the social and political changes in France from 1798 to 1815 will be analyzed; the diplomatic and international influence of the French Revolution will be surveyed. Spring, alternate years.

HONORS

HON. 300: HONORS COLLOQUIUM 2 s.h.

A regular meeting of students in the honors program, interested faculty members, and occasional guests from outside the college for discussion of selected topics of broad interest. Prerequisite: consent of the Committee for Talented Students.

LIBRARY SCIENCE

L.S. 255: INTRODUCTION TO MEDIA LIBRARIANSHIP 3 s.h.

Broad overview of libraries and library media centers and the profession of librarianship beginning with the history of libraries and concluding with the impact of technology on libraries. Fall, annually.

L.S. 257: BASIC INFORMATION SOURCES AND SERVICES 3 s.h.

Emphasis on the approaches to locating information. The criteria for selection of reference materials and the examination of reviewing media for new reference aids. Organization of reference service. The study of a selected list of reference works. Spring, annually.

L.S. 258: SELECTION OF LIBRARY MEDIA 3 s.h.

Familiarity with basic bibliographical tools, including current reviewing media and the book trade. The establishment of policies and criteria for the selection and evaluation of book and non-book materials. Prerequisite to L.S. 356 and L.S. 358. Fall, annually.

L.S. 260: DEVELOPMENT AND ADMINISTRATION OF LIBRARIES 3 s.h.

The development of the library as an institution. The concept of philosophy of librarianship. General principles of administration and their application to the organization and management of different types of libraries. Problems and practices with respect to a library's function, staff, collections, and building. Fall, annually.

L.S. 356: MEDIA FOR ADOLESCENTS 3 s.h.

Survey of adolescent literature and other media. Study of the reading interests of high school age students and characteristics of adolescent literature and methods of introducing young adults to books. Techniques of preparing and delivering book talks and developing young adult programs. Prerequisite: L.S. 258 or permission of the instructor. Fall, annually.

L.S. 357: ORGANIZATION OF MEDIA 3 s.h.

Organization of print and non-print materials for effective service. Principles and methods of descriptive cataloging. The structure and application of the Dewey Decimal Classification, the Library of Congress Classification, and standard subject authority lists. The use of printed cards and the utilization of other work simplification techniques. The study of filing rules. Maintenance of library catalogs — shelf list, divided and dictionary card catalogs, and the printed book catalog. Fall, annually.

L.S. 358: MEDIA FOR CHILDREN 3 s.h.

Survey of children's literature and related materials. A study of the principles of selection and evaluation of books, periodicals, and other materials for children. Reading guidance, with attention to materials for special groups. Development of general and subject bibliographies, preparation of annotations. Techniques of story-telling and the selection of materials for the story hour. Prerequisite: L.S. 258 or permission of the instructor. Spring, annually.

L.S. 360: ADMINISTRATION OF SCHOOL MEDIA CENTERS 3 s.h.

Study of the objectives and functions of the modern school library media center. Technical and administrative procedures, budget preparation, personnel space and equipment. Acquisition, preparation, and circulation of all forms of media. Maintenance of the collection. Standards for evaluation of school library media centers. Relations with other school libraries and the public library. The development of a functional school library media program. Spring, annually.

L.S. 432: COLLOQUIUM no credit

A series of lectures, discussions, and film demonstrations, presented by visiting lecturers and members of the staff. Required of all students. Each semester.

L.S. 455: SPECIAL TOPICS IN LIBRARIANSHIP 3 s.h.

In depth discussion, study, and research of a selected topic related to the role of the library in responding to social issues, service to special groups, or problem areas, such as Inner City Services, Media and Minorities, Rural Library Services, Services to Prison Libraries. (Not creditable toward library science certification.) On demand.

L.S. 457: INDEPENDENT STUDY/SEMINAR 1-3 s.h.

Opportunity to explore in depth a facet of librarianship according to need or interest, under the direction of a faculty member of the school. Special area to be approved by a faculty committee. Development of research techniques. The preparation of a scholarly paper or completion of a special project.

L.S. 459: MEDIA, METHODS, AND THE CURRICULUM 3 s.h.

Planning for the effective use of school library media services in cooperation with the instructional staff. Examination of school library media philosophies and educational objectives. Development of a library media program. Examines the librarian's role in designing curriculum, in developing teaching-learning strategies, and in working with teachers, students and administrators. Prerequisites: L.S. 256, 257, 258, either 356 or 358, and Comm. 240. Spring, annually.

MATHEMATICS

The usual entry level for students in the natural sciences and mathematics and for other students with good math ability and background, regardless of their major, is Math 171, but science and math majors with insufficient background may select Math 115-152. Business students normally enter at Math 131, Elementary Education majors at Math 111. Math 112 is the usual course for students with no mathematics requirement outside general education, but Math 221 is a good alternative and other electives are also available. For more detail, students should contact their advisors or the chairman of the Mathematics Department.

MATH. 100: PRACTICAL MATHEMATICS 3 s.h.

An introduction to basic algebraic concepts, review of algebraic and mathematical manipulation, emphasis on individual attention. (No student who has satisfactorily completed another mathematics course may subsequently receive credit toward graduation for Math. 100.) Each semester, each summer.

MATH. 111: BASIC MATHEMATICS FOR ELEMENTARY TEACHERS 3 s.h.

Structure of the real number system. Elementary set theory. Open only to students in the School of Education. Others only with permission of the department. Each semester.

MATH. 112: EXCURSIONS IN MATHEMATICS 3 s.h.

A course designed to acquaint the student with the nature and scope of modern mathematics and its applications. Emphasis is on concepts and understanding rather than the acquisition of techniques. The course is intended for majors in the arts, humanities, and social sciences. Each semester.

MATH. 115: COLLEGE ALGEBRA 3 s.h.

Polynomials, equations and inequalities, exponents and radicals, logarithms. Prerequisite: 2 years of high school algebra, or Math. 100. Students completing Math. 131 or 171 may not select Math. 115. Each semester.

MATH. 131: MATHEMATICS FOR BUSINESS AND ECONOMICS 3 s.h.

Mathematical techniques with special applications in business and related areas. Topics include: matrices, linear programming, probability, and statistics. Prerequisite: three years of high school mathematics. Each semester.

MATH. 132: CALCULUS FOR BUSINESS I* 3 s.h.

Differential calculus with applications to business and the social sciences. Topics include limits, derivatives, maxima and minima, and introduction to integration related topics. Prerequisite: 131, 171 or the equivalent. Each semester.

MATH. 133: CALCULUS FOR BUSINESS II* 3 s.h.

Applications of integral calculus to business and the social sciences. Topics include rules of integration, definite and indefinite integrals, series and partial derivatives. Prerequisite: Math. 132 or the equivalent. Each semester.

MATH. 152: TRIGONOMETRY 3 s.h.

Properties of trigonometric functions and their inverses. Spring, annually.

MATH. 171: PRECALCULUS 4 s.h.

Review of high school algebra, inequalities, analytic trigonometry, logarithms, elementary theory of equations, complex numbers, and mathematical induction Prerequisite: 2 years of high school algebra. Students may not receive credit for both Math. 115 and 171. Each semester.

MATH. 172: CALCULUS WITH ANALYTIC GEOMETRY I 4 s.h.

Elementary analytic geometry, limits continuity, differentiability. Prerequisite: Math. 171 or its equivalent. Each semester.

MATH. 211: MODERN CONCEPTS OF MATHEMATICS FOR ELEMENTARY TEACHERS 3 s.h.

Real number system, introduction to elementary abstract algebra, set theory. Prerequisite: Math. 111. Each semester.

MATH. 212: INTUITIVE GEOMETRY 3 s.h.

An intuitive overview of geometry; axiomatic structure of geometry, basic constructions, proofs. Not open to mathematics majors. Prerequisite: any 100 level Math. course. Alternate years.

MATH. 213: INTUITIVE ANALYSIS 3 s.h.

An elementary introduction to the basic properties of the real number system and the calculus, including functions, sequences, limits, continuity, integrals, and derivatives. Prerequisite: Any 100-level mathematics course. Spring, annually.

MATH. 214: FINITE MATHEMATICS 3 s.h.

An introduction to the basic properties of finite mathematics, including partitions of sets, counting theorems, permutations, combinations, probability. Suggested for students in elementary education. Fall, annually.

MATH. 215: MATHEMATICAL CONCEPT LABORATORY — AN ACTIVITY-ORIENTED APPROACH 3 s.h.

Development of certain concepts of mathematics using an activity-oriented approach. Class is conducted in a laboratory atmosphere. Topics considered are the rational number system, number theory, induction, measurement, geometric shapes. Each semester.

MATH. 221: STATISTICS WITH APPLICATIONS 3 s.h.

Basic principles and methods of statistical analysis useful in the social sciences, biology, and education, designed specifically for students not majoring in mathematics. (Not open to mathematics majors.) Each semester.

*Math. 132-3 are designed for students outside the natural sciences. Students in Math and Sciences and better prepared students in other disciplines are encouraged to select Math. 172-271 instead.

MATH. 240: DISCRETE MATHEMATICAL STRUCTURES 3 s.h.

Mathematical expertise necessary to facilitate the efficient computer manipulation of data. Topics include permutations and combinations, boolean logic, lattices, graphs, etc. Prerequisite: Boolean Algebra or consent of the instructor. Once each year.

MATH. 255: SURVEYING 3 s.h.

Use of the transit, angle mirror, bypsometer, sextant, and other measuring instruments; simple map-making exercises and elementary surveying; construction — and use of student-made instruments and teaching devices. Prerequisites: Math. 152 or 171 or equivalent. Summers, and on demand.

MATH. 271: CALCULUS WITH ANALYTIC GEOMETRY II 4 s.h.

Review of limits, definition of Reimann integral and applications. Integration techniques; topics in analytic geometry. Prerequisite: Math. 172. Each semester.

MATH. 272: CALCULUS WITH ANALYTIC GEOMETRY III 4 s.h.

Basic properties of limits, continuous and differentiable functions. Sequences, series, solid analytic geometry, functions of several variables, multiple integrals. Prerequisite: Math 271. Each semester.

MATH. 350: ORDINARY DIFFERENTIAL EQUATIONS 3 s.h.

First order differential equations. Linear differential equations of higher order; systems of differential equations. Series methods. Prerequisite: Math. 272. Fall, annually.

MATH. 352: PROBABILITY 3 s.h.

Basic concepts of elementary probability; probability in finite sample spaces; conditional probability; independent trials; sophisticated counting; probability in relation to random variables. Prerequisite: Math. 272. Fall, annually.

MATH. 357: MODERN GEOMETRY 3 s.h.

Axiomatic treatment of topics in geometry. Prerequisite: Math. 272. Fall, annually.

MATH. 360, 361: NUMERICAL METHODS IN MATHEMATICS I, II 3 s.h. each

Computer programming of algorithms, error, calculus of finite differences, numerical evaluation of integrals, algorithms for the solution of algebraic equations, and systems of algebraic equations with applications to selected problems. Prerequisite: Math. 271. Each semester.

MATH. 369: BOOLEAN ALGEBRA 3 s.h.

An introduction to the theory of Boolean Algebra, with applications to the theory of sets, logic, and electromechanisms. Prerequisite: Math. 272 or permission of instructor. Fall, alternate years.

MATH. 370: INTRODUCTION TO LINEAR ALGEBRA 3 s.h.

Introduction to vector spaces, linear transformations, matrices, determinants, and related topics. Prerequisite: Math. 271. Spring, annually.

MATH. 371, 372: MODERN ALGEBRA I, II 3 s.h. each

An introduction to groups, rings, integral domains and fields. Prerequisite: Math. 272. Once annually.

MATH. 454: THEORY OF NUMBERS 3 s.h.

Factorization, congruence, quadratic reciprocity. Number theoretic functions, diophantine equations, continued fractions. Prerequisite: Math. 272. Spring, alternate years.

MATH. 456: MATHEMATICAL STATISTICS 3 s.h.

Mathematical expectation; discrete and continuous random variables; probability densities; sampling distributions; point estimations; interval estimation; tests of hypotheses; regression and correlation; analysis of variation; moment-generating functions. Prerequisites: Math. 352 and 272. Spring, alternate years.

MATH. 471, 472: INTRODUCTION TO REAL ANALYSIS 3 s.h.

Limits, continuity, differentiability, integrability, and convergence for functions of a real variable and several variables. Prerequisite: Math. 272. Fall and spring, respectively.

MATH. 473: ELEMENTARY TOPOLOGY 3 s.h.

Topological spaces, metric spaces, compactness, connectedness. Prerequisite: Math. 272. Spring, annually.

MATH. 480: TOPICS 3 s.h.

To permit offering special topics reflecting the interests of the students. The specific topic to be covered each term will be announced in advance. Prerequisite: Math. 272 and permission of the instructor.

MATH. 490, 491, 492: HONORS SEMINAR I, II, III 1 s.h. each

Selected topics in mathematics. Open only to students selected by the departmental seminar committee.

MATH. 499: INDEPENDENT STUDY 1-3 s.h.

Individual study under faculty supervision. Prerequisite: 12 hours of Math. numbered 300 or above and written consent of the department chairman.

MILITARY SCIENCE

MS 101: WORLD MILITARY HISTORY 2 s.h.

A study of the relationship and impact of warfare and military forces on the social, economic, and technological development of the world as well as a study of strategy, tactics and personalities involved in major conflicts. Also, see leadership laboratory. Fall, annually.

MS 102: AMERICAN MILITARY HISTORY 2 s.h.

A study of the evolution of American military institutions, and policies from colonial troops to present. Emphasis is on the relationship between the military and other aspects of American society and the role of the military in the establishment, expansion, preservation and development of the nation. Also, see leadership laboratory. Spring, annually.

MS 203: FUNDAMENTALS OF TOPOGRAPHIC MAP INTERPRETATION AND TACTICAL OPERATIONS 2 s.h.

The systematic study of topographic maps, their interpretation and use. Emphasis is given to understanding the grid and coordinate system, map scale, graphic representations, terrain analysis, to include an introduction to military organization, techniques, resources and capabilities involved in conducting small unit tactics operations. Fall, annually.

MS 204: NATIONAL SECURITY AND CONCEPT OF FORCE 2 s.h.

Study of national security concepts, policies and the national decision-making process with emphasis on current policies and events. Spring, annually.

MS 305: FUNDAMENTALS OF ORGANIZATIONAL LEADERSHIP AND MODERN LEARNING/TEACHING RELATIONSHIP 3 s.h.

Study in practical application of principles of Leadership/Management as applied in classroom and field to include case studies in psychological, physiological, and sociological

factors which affect human behavior; individual and group solution of leadership problems common to organizations and small military units. Also, see leadership laboratory. Fall, annually.

MS 306: STUDY OF ADVANCED LEADERSHIP, AND THE PLANNING AND EXECUTION OF MODERN TACTICAL OPERATIONS 3 s.h.

Analysis of leader's role in directing and coordinating efforts of individuals and small units in execution of offensive and defensive tactical missions, to include command and control systems, the military team, and communications techniques. Also, see leadership laboratory. Spring, annually.

MS 407: MANAGEMENT OF THE MILITARY COMPLEX TO INCLUDE FUNDAMENTALS OF MILITARY AND INTERNATIONAL LAW 3 s.h.

Study of the various managerial elements needed to effectively control a military organization and their techniques used to accomplish these functions. Studies in military law and international law prepare the students for their legal responsibilities. Includes obligation and responsibilities of an officer.

MS 408: SEMINAR IN ANALYSIS AND MANAGEMENT 3 s.h.

Selected management problems and situations will be presented as they relate to organizations and the military.

MS 001: LEADERSHIP LABORATORY

A practical experience designed for the attainment and application of leadership principles. Concurrently scheduled in conjunction with all fall and summer semester Military Science courses, it provides for practical challenges in personal accomplishment, both physical and mental, and for development of team work and leadership. Includes mountaineering, rafting, rappelling, survival, and military post orientation trips. One hour per week.

MS 002: LEADERSHIP LABORATORY

A practical experience designed for the attainment and application of leadership principles. Concurrently scheduled in conjunction with all spring semester Military Science courses, it provides for practical challenges in personal accomplishment, both physical and mental, and for development of team work and leadership. Includes marksmanship, self defense, cross country skiing, and orienteering. One hour per week.

MUSIC

MUS. 111: INTRODUCTION TO MUSIC 3 s.h.

An introductory course designed to provide a basic orientation to the enjoyment and understanding of music. Use is made of recordings, concerts, and other media. No prerequisite courses or special abilities required. Each semester.

MUS. 112: INTRO. TO AFRO-AMERICAN MUSIC 3 s.h.

An introductory course designed to provide a basic orientation to the enjoyment and understanding of Afro-American music. Use is made of recordings, filmstrips, and films. The course is non-performance. No prerequisite. Each semester.

MUS. 131: FUNDAMENTALS OF MUSIC 3 s.h.

The basic vocabulary of music fundamentals: notation, scale structures, intervals, triads and seventh chords, rhythm and meter, phrase and cadence, overtone series, modulation, introductory study of two-and-three part forms, etc. No prerequisite. Each semester.

MUS. 132: BASIC MUSIC METHODS FOR THE ELEMENTARY CLASSROOM TEACHER 3 s.h.

A study of basic approaches to developing methods and materials for teaching music in elementary grades. Emphasis is on improvement of basic musicianship through some keyboard experience, further development of reading ability Prerequisite: Music 131 or successful completion of the music department competency test. Each semester.

MUS. 135: THEORY OF MUSIC I 4 s.h.

Review of basic properties and notation of tone. Tonality, chord structure and texture. Functions of primary and secondary triads. Chord progressions. Melodic and harmonic cadences. Harmonization and voice leading. First and second inversion chords. Formal characteristics of melody. Embellishing tones. Introduction to harmonic, melodic and rhythmic ear training, dictation and sightsinging. For music majors or by permission. Fall, annually.

MUS. 136: THEORY OF MUSIC II 4 s.h.

Continuation of Theory of Music I. Further aspects of harmony: diatonic seventh chords, secondary dominants, mutated chords, harmonic sequence. Further discussion of melodic and harmonic cadences. Modulation and mutation. Introduction to binary and ternary forms. Further development of ear training, dictation, and sightsinging. For music majors or by permission. Prerequisite: Mus. 135. Spring, annually.

MUS. 151: HISTORY AND LITERATURE OF MUSIC I ANTIQUITY TO 1600 3 s.h.

Music before the Middle Ages: Greece, Rome, Byzantium. Medieval music: Gregorian Chant, secular forms. Early polyphony; music of the 13th century. Ars Nova in France and Italy. English and Burgundian schools: Burgundian Chanson, motet, Mass. Renaissance music: social conditions; Netherlands Chanson, motet, Mass; Venetian, French, German, Spanish, and English music of the Renaissance. The Late Renaissance: Lutheran, Chorale, Psalter, Anglican Church music; Palestrina, Victoria, Di Lasso, Byrd. English keyboard music; Gabrieli and instrumental music. For music majors or by permission. Fall, annually.

MUS. 152: HISTORY AND LITERATURE OF MUSIC II BAROQUE AND CLASSIC 1600-1800 3 s.h.

Comparison of Renaissance and Baroque music; Early Baroque in Italy; Early and Middle Baroque in Northern countries; Middle Baroque in Italy; French music under absolutism; English music during Commonwealth and Restoration; Late Baroque in Italy and France; fusion and co-ordination of national styles; social conditions; Rococo; the Viennese classic period; style and form in Viennese classic music: Haydn, Mozart. For Music majors, or by permission. Prerequisite: Music 151. Spring, annually.

Musical Organizations: Mus. 150-196 may be taken for one credit or for no credit. No more than one such course for credit may be taken each semester. Credits thus earned may not be counted among the Humanities in General Education but may be counted under Personal Development and Life Skills and under Free Electives, with no more than eight of these credits counting for graduation.

MUS. 149:	GOSPELIERS	0 s.h.
MUS. 150:	OPERA WORKSHOP	0-1 s.h.
MUS. 153:	CONCERT CHOIR	0-1 s.h.
MUS. 154:	MADRIGAL SINGERS	0-1 s.h.
MUS. 155:	ORCHESTRA	0-1 s.h.
MUS. 156:	SYMPHONIC BAND	0-1 s.h.
MUS. 157:	MARCHING BAND	0-1 s.h.

MUS. 159:	LABORATORY JAZZ BAND	0-1 s.h.
MUS. 190:	BRASS CHOIR	0-1 s.h.
MUS. 191:	BRASS ENSEMBLE	0-1 s.h.
MUS. 192:	PERCUSSION ENSEMBLE	0-1 s.h.
MUS. 193:	STRING ENSEMBLE	0-1 s.h.
MUS. 194:	WOODWIND CHOIR	0-1 s.h.
MUS. 195:	WOODWIND ENSEMBLE	0-1 s.h.
MUS. 196:	CLARINET CHOIR	0-1 s.h.

MUS. 160: PIANO CLASS I 1 s.h.

Designed to service two categories of students: the non-piano music education major and the non-music major. The purpose, for both, is the same: teaching piano to beginners in such a manner that they attain an acceptable degree of elementary technical proficiency at the keyboard, a basic knowledge of fundamental scales and chords and a burgeoning comprehension of the existence and desirability of musicianship. Stress is placed on the development of basic keyboard skills and upon a musical performance at all levels of performance. Prerequisite: Music 131 or equivalent background. Each semester.

MUS. 161: PIANO CLASS II 1 s.h.

This course is designed to help the student to develop the ability to perform the skills begun in Piano Class I, at a more advanced level. Prerequisite: Music 160, Piano Class I, or permission of instructor. Each semester.

MUS. 162: VOICE CLASS I 1 s.h.

Designed to give the students an approach to vocal methods in order to eliminate problems. The purpose is to teach each student to treat his voice as an instrument. Class instruction is offered in voice for the non-voice major. Emphasis is placed on the development of the vocal instrument and an attitude of artistic maturity on the part of the students, and upon artistic performance at all levels of proficiency. Prerequisite: Music 131 or equivalent background. Each semester.

MUS. 163: VOICE CLASS II 1 s.h.

A continuation of Voice Class I. It is designed to provide more advanced techniques for producing a free, artistic vocal sound. A survey of various vocal styles from musico-historical repertoire will be provided. Prerequisite: Voice Class I or permission of instructor. Each semester.

APPLIED MUSIC

Individual instruction in voice, piano, strings, woodwinds, and brass. Stress is placed on the development of an attitude of artistic maturity on the part of the student, and upon artistic performance at all levels of proficiency. Admission by audition and permission of instructor and department chairman. Prerequisite: Mus. 131 or equivalent background. Course numbers are listed below.

MUS. 164:	VIOLIN, VIOLA	1 s.h.
MUS. 165:	CELLO, STRING BASS	1 s.h.
MUS. 166:	FLUTE, OBOE, SAXOPHONE	1 s.h.
MUS. 167:	CLARINET, BASSOON	1 s.h.
MUS. 168:	TRUMPET, FRENCH HORN	1 s.h.
MUS. 169:	TROMBONE, BARITONE HORN, TUBA	1 s.h.
MUS. 170:	PERCUSSION	1 s.h.
MUS. 171:	PIANO	1 s.h.

MUS. 172: VOICE 1 s.h.

MUS. 173: ORGAN 1 s.h.

Offered each semester.

MUS. 264: VIOLIN, VIOLA 4 s.h.

MUS. 265: CELLO, STRING BASS 4 s.h.

MUS. 266: FLUTE, OBOE, SAXOPHONE 4 s.h.

MUS. 267: CLARINET, BASSOON 4 s.h.

MUS. 268: TRUMPET, FRENCH HORN 4 s.h.

MUS. 269: TROMBONE, BARITONE HORN, TUBA 4 s.h.

MUS. 270: PERCUSSION 4 s.h.

MUS. 271: PIANO 4 s.h.

MUS. 272: VOICE 4 s.h.

MUS. 273: ORGAN 4 s.h.

Offered each semester.

MUS. 231: TEACHING MUSIC CREATIVELY 3 s.h.

The various activities of the elementary music program (singing, listening, reading, moving, and playing of instruments) are approached through creative and experimental techniques which permit the child to learn with the body, mind, spirit, and through his whole personality. Each phase of the program should emerge as a vital creative activity. Prerequisites: Mus. 131 and 132. Spring, every other year.

MUS. 232: KEYBOARD SKILLS FOR ELEMENTARY TEACHERS 3 s.h.

Various styles of accompaniment for rote playing or sight reading of classroom and community songs. Emphasis upon the development of technical skills, reading facility, and memorization. Prerequisite: Mus. 131 or equivalent background. Each semester.

MUS. 233: SONG LITERATURE FOR ELEMENTARY TEACHERS 3 s.h.

A further study of the materials used in music education in the elementary school, including a review of the song material available in various music series textbooks and vocal command of this material. Emphasis will be on the criteria for choosing song material to illustrate various musical concepts, along with guidelines for music curriculum development. Prerequisites: Music 131 and 132. Spring, every other year.

MUS. 235: THEORY OF MUSIC III 4 s.h.

Continuation of Theory II. Further aspects of harmony; ninth, eleventh, thirteenth, embellishing diminished, Neapolitan, and augmented sixth chords. Aspects of tonal structure and form. Thematic development in two-voice counterpoint. The rondo and sonata-allegro forms. Advanced ear training, dictation, and sightsinging. For music majors or by permission. Prerequisite: Mus. 136. Fall, annually.

MUS. 236: THEORY OF MUSIC IV 4 s.h.

Continuation of Theory III. Investigation of enriched tonal resources through chromaticism, modality, and modulation. Melodic, harmonic, formal, and contrapuntal processes and analytical techniques in twentieth century music. Discussion of the fugue and the variation forms. Advanced ear training, dictation, and sightsinging. For music majors or by permission. Prerequisite: Mus. 235. Spring, annually.

MUS. 249: HISTORY OF AFRO-AMERICAN MUSIC 3 s.h.

A study of Afro-American music in the United States from its point of origin in African cultures through the development of slave music, blues, ragtime, and jazz. An in-depth and analytical study of the styles and techniques employed in various idioms of Afro-American

music with regard to vocal and instrumental usage of melody, harmony, and rhythm. Prerequisite: 1 semester of music theory (Mus. 131, or Mus. 135) or some equivalent background, or permission of the instructor. On demand.

MUS. 251: HISTORY AND LITERATURE OF MUSIC III BEETHOVEN, AND THE ROMANTIC PERIOD: 1800-1890 3 s.h.

Beethoven: life and character; Beethoven's music. Romanticism: historical perspective; social conditions; painting and literature. Vocal music; instrumental music; opera and music drama. The national schools: Russia; Bohemia; Scandinavia; France; England; Spain; American music. For Music majors, or by permission. Fall, annually.

MUS. 252: HISTORY AND LITERATURE OF MUSIC IV. CONTEMPORARY MUSIC: 1890 TO THE PRESENT 3 s.h.

The late romantics; impressionism; Stravinsky; Bartok; Hindemith; neoclassicists; nationalists; Soviet realism; neo-romantics; 12-tone composers; expressionism serial; music. Schoenberg; Berg; Webern, etc.; experimentalists, electronic music; Stockhausen, Boulez, etc. American music from the late 19th century to the present. For Music majors, or by permission. Spring, annually.

MUS. 255: EAR TRAINING AND SIGHT SINGING 3 s.h.

Training and practice in melodic, rhythmic, and harmonic dictation to develop ability to identify, understand, and write what is heard. Emphasis on singing at sight from a score and on aural analysis of melody and harmony. Prerequisite: Mus. 131. On demand.

MUS. 256: KEYBOARD HARMONY 1 s.h.

A practical application at the keyboard of the essentials of harmony, designed to help the student develop a sense of good chord progression and to master extempore keyboard harmonization, transposition, and improvisation. Prerequisites: Mus. 131 or 135, plus 2 semesters of applied piano. On demand.

MUS. 257: HISTORY OF MUSIC I 3 s.h.

A study of western music from its origins in Hebrew and Greek cultures through the development of plainsong and polyphony to Haydn and Mozart. Analysis of styles and techniques employed by various composers and of concurrent trends in the other arts. No prerequisite. On demand.

MUS. 258: HISTORY OF MUSIC II 3 s.h.

A continuation of Mus. 257. A survey of 19th and 20th century music from Beethoven to the present, emphasizing development and experimentation through the twentieth century. Mus. 257 desirable but not required. On demand.

MUS. 259: BAND AND ORCHESTRA INSTRUMENTS 3 s.h.

The construction, tone quality, range, and special uses of each instrument in solo capacity or as part of the orchestra or band. Practical work includes learning to play and to demonstrate the various instruments, with emphasis on fundamental techniques. On demand.

MUS. 260: VOCAL PEDAGOGY 1 s.h.

Systematic study of the physical nature and function of the vocal instrument and breathing process and how they relate to the fundamental principles of teaching vocal technique. Application of this knowledge to the principles of vocal production and technique through lectures, demonstration and discussion, as well as group participation in instructing each other. Prerequisite: Minimum of 4 semesters of voice or Voice Class I and II, or permission of instructor. Spring, biennially.

INSTRUMENTAL TECHNIQUES

This sequence of courses is designed to acquaint the music major with a basic knowledge of the instruments commonly used in bands and orchestras. Sufficient technique must be developed by each student to enable him to introduce these instruments successfully to beginners in elementary or secondary school instrumental programs. Includes proper methods of tone production, fingerings, bowing techniques, embouchure and breath control, selection and purchase of instruments for school use, care and maintenance of instruments, selection, care, and adjustment of reeds or strings, storage of instruments, methods used in instruction of the instrument, and historical aspects of each family of instruments. For Music majors or by permission.

MUS. 280: INSTRUMENTAL TECHNIQUES I: VIOLIN, VIOLA 1 s.h.

MUS. 281: INSTRUMENTAL TECHNIQUES II: CELLO, STRING BASS 1 s.h.

MUS. 282: INSTRUMENTAL TECHNIQUES III: FLUTE, OBOE, SAXOPHONE 1 s.h.

MUS. 283: INSTRUMENTAL TECHNIQUES IV: CLARINET, BASSOON 1 s.h.

MUS. 284: INSTRUMENTAL TECHNIQUES V: TRUMPET, FRENCH HORN 1 s.h.

MUS. 285: INSTRUMENTAL TECHNIQUES VI: TROMBONE, BARITONE HORN, TUBA 1 s.h.

MUS. 286: INSTRUMENTAL TECHNIQUES VII: PERCUSSION 1 s.h.
Each semester.

MUS. 333: ELEMENTARY MUSIC METHODS 3 s.h.

The role of music in the elementary school; the roles of the classroom teacher, the music specialist, and the consultant. Plans, attitudes, and problems in teaching vocal and instrumental music; curriculum development. Evaluation of musical experience and growth in primary, intermediate, and upper elementary grades. Music reading as an integral part of the total music program. Musical growth and experience in singing, part-singing, listening, instrumental and rhythmic activities. Emphasis on development of ability to use the voice effectively in teaching, and on the thorough familiarity with music series texts, use of keyboard, rhythmic instruments, recordings and new developments in teaching aids. Introduction to the Orff and Kodaly methods. Supervised teaching experience. For music majors only. Prerequisites: Mus. 135, 136. Fall, annually.

MUS. 334: JUNIOR HIGH AND SECONDARY MUSIC METHODS 3 s.h.

A critical study of the entire intermediate and secondary school music program; academic, vocal, and instrumental. Curriculum planning, motivation, evaluation, selection of materials and texts, audio and visual aids, and effective teaching methods for the general music course and for elective courses in theory, history, and appreciation of music. Particular attention is given to the organization and development of both large and small vocal and instrumental groups: recruitment; selection of repertoire; performance levels; music rehearsal rooms and facilities; public performance and public relations. For music majors only. Prerequisites: Music, 135, 136. Spring, annually.

MUS. 349: ART SONG LITERATURE I 2 s.h.

Representative song repertoire of the German lied and the English language art song will be studied from a performance and a historical perspective. The songs of Schubert, Schumann, Brahms, Wolf, Strauss, Britten and Rorem will be stressed. Prerequisite: Music 251, 252 or permission of the instructor.

MUS. 350: ART SONG LITERATURE II 2 s.h.

Representative song repertoire of French, Italian, Slavic and Russian composers will be studied from a performance and a historical perspective. The songs of Faure, Debussy, Ravel, Poulenc and Moussorgsky will be stressed. Prerequisite: Music 251, 252 or permission of the instructor.

MUS. 351: KEYBOARD LITERATURE 3 s.h.

A comprehensive survey of keyboard music from the Renaissance to the present. Representative works from each period are selected for careful study and analysis, with emphasis on performance practices as well as formal and stylistic elements in the music. Includes the development of various keyboard instruments. Prerequisites: Mus. 251, 252, or permission of instructor. Offered when faculty available.

MUS. 352: SYMPHONIC LITERATURE 3 s.h.

An intensive study of orchestral music from the Baroque period to the present, using scores, live performances, and recordings with particular reference to performance practices and stylistic analysis. Prerequisites: Mus. 251, 252 or permission of instructor. Offered when faculty available.

MUS. 353: CHAMBER MUSIC LITERATURE 3 s.h.

An intensive study of music written for small ensembles from the Renaissance period to the present. Representative works from each period will be selected for careful investigation and analysis. Performance by members of the class or by faculty groups will be used wherever possible. Prerequisites: Mus. 251, 252, or permission of instructor. Offered when faculty available.

MUS. 355: OPERATIC LITERATURE 3 s.h.

A comprehensive survey of the entire field of operatic music from 1600 to the present, including 17th century Baroque opera; 18th century operatic reforms (Gluck and Mozart); opera in the 19th century (Verdi, Wagner, Strauss, and Puccini); 20th century trends in opera (Stravinsky, Berg, Britten, Menotti, etc.) Prerequisites: Mus. 251, 252, or permission of instructor. Offered when faculty available.

MUS. 356: CHORAL LITERATURE 3 s.h.

A comprehensive survey of choral music from the fifteenth century to the present with emphasis on masses, motets, and madrigals of the Renaissance period; oratorios, cantatas, and passions of the Baroque period; major choral works of Haydn, Mozart, Beethoven, Berlioz, Mendelssohn, Verdi, and Brahms; choral works of the twentieth century. Prerequisites: Mus. 251, 252, or permission of instructor. Offered when faculty available.

MUS. 357: BAND LITERATURE 3 s.h.

A comprehensive survey of the available published and recorded literature for marching, military, and concert bands, symphonic and wind ensembles, and woodwind and brass chamber ensembles including transcriptions and arrangements; major publishers in the field; evaluation of various editions; and also a study of the principal trends of instrumental pedagogy, repertoire, and performance. Prerequisites: Mus. 131, 132. Offered when faculty available.

MUS. 361: PIANO TEACHING METHODS & MATERIALS 3 s.h.

A comprehensive survey of modern piano teaching methods and available published teaching materials. Emphasis will be placed on the teaching of notation and the development of reading skills; the teaching of keyboard techniques through an understanding of the player's physical mechanism and the coordination of timing and touch; problems of fingering, pedaling, and memorization. Evaluation of materials for beginning students; easier teaching pieces by the great composers; anthologies; appropriate music for the intermediate student, leading to a more advanced technique and musicianship and to acquaintance with a wide range of composers and musical styles. Prerequisites: Mus. 151, 152; or Mus. 131 and permission of the instructor. Offered when faculty available.

MUS. 362: INSTRUMENTAL METHODS 2 s.h.

Principles and procedures of organizing and conducting instrumental classes, bands, and

orchestras in the public schools. Examination and use of texts, methods, and other materials. For Music majors or by permission. Spring, annually.

MUS. 363: VOCAL METHODS 2 s.h.

Principles and procedures of organizing and conducting vocal classes and choral ensembles in the public schools. Vocal techniques, tone production, proper vowel placement, proper focus on tone, diction, diaphragmatic breathing, and investigation of choral literature. For Music majors or by permission. Fall, annually

MUS. 364: COMPOSITION 3 s.h.

A study of the nature of the musical idea and of the various possibilities of its subsequent development, including canonic or fugal treatment, motivic development, and variational procedures. A review of traditional structural plans and of contemporary formal and stylistic trends. Creative assignments emphasize the understanding of past and present compositional styles and techniques and the gradual development of a personal language. Prerequisites: Mus. 135, 136, or permission of instructor. Offered when faculty available.

MUS. 365: CONDUCTING I 2 s.h.

Designed to develop skilled baton technique and clarity of gesture, effective rehearsal techniques, understanding of performance problems involving tonal balance, tempo, complex rhythmic situations, especially as related to intermediate and secondary school instrumental groups. Traditional and modern beat patterns; expressive gestures; cues and development of left hand; fermata; etc. Study of scores; problems of interpretation and rehearsal; performance preparation. For Music majors or by permission. Fall, annually.

MUS. 366: CONDUCTING II 2 s.h.

Continuation of Conducting I with emphasis on mastery of technique; special emphasis on problems of vocal groups in junior and senior high school. Spring, annually.

MUS. 367: ORCHESTRATION 2 s.h.

Basic principles of clear instrumental organization and tonal interest, related to the size of the instrumental group. Ranges and registers of the instruments; transposition; bowing and phrasing; phrasing for woodwind instruments; possibilities and limitations. Texture, timbre, dynamics, principles of tonal interest; contrast of timbre; instrumental motion; blend. Structural values; design, overlapping of choirs. Prerequisites: Theory of Music I and II, Instrumental Techniques (minimum of one credit in each family of instruments). Each semester.

MUS. 368: BAND ARRANGING 3 s.h.

A study of instrumentation and scoring problems in marching, military, and concert bands, symphonic wind ensembles, and woodwind and brass chamber ensembles. Emphasis on score layout and notation, copying and multiple reproduction of parts, copyright implications, and knowledge of effective combination of instrumental sounds. Prerequisites: Mus. 131 (or equivalent background) and consent of instructor. Offered when faculty available.

MUS. 369: MARCHING BAND TECHNIQUES AND MATERIALS 2 s.h.

A detailed study of the marching band including organization, music, materials, care of instruments and uniforms, marching essentials, administration, and contemporary techniques. Prerequisites: Mus. 135, 136, 137, or permission of the instructor. Fall, annually.

MUS. 411: SPECIAL TOPICS IN MUSIC 3 s.h.

Topics of special interest in the field of music will be offered. Subject areas such as Orff — Music for Children; Kodaly method; Mozart, the Man and his Music will be studied. Topics will be anounced in advance. Offered occasionally.

MUS. 431-531: MUSIC IN EARLY CHILDHOOD 3 s.h.

The study of music activities for the early childhood years (ages 2-8) and methods for implementing these activities. Topics include: a stuoy ot the development ot the child voice; singing activities and criteria for song selection; music concept development through listening discrimination, expressive movement and creative instrumental activities; introductory music reading activities; an overview of current trends in music education. Prerequisites: Mus. 131 and 132. Fall, annually.

MUS. 450: TEACHING THE CHANGING OR ADOLESCENT VOICE 3 s.h.

This course will consist of the demonstration of techniques in the training, correcting, and building of adolescent voices. The course is open to music teachers, college music majors, or by permission of the instructor. Summer only.

MUS. 451: ADVANCED CONDUCTING 3 s.h.

A study of selected works from band, choral, and orchestral literature with particular reference to performance problems involving tonal balance, tempi, comples, rhythmic and polymetric situations, vocal intonations, and diction. Conducting experience with band, choir and/or madrigal singers, and orchestra in rehearsal. Emphasis on a thorough understanding of the musical score and on effective rehearsal techniques. Prerequisites: Mus. 365, 366, or permission of instructor. Offered when faculty available.

MUS. 452: WESTERN MUSIC AND ITS RELATIONSHIP TO THE FINE ARTS 3 s.h.

This course will consist of a comparative study of Western music in its stylistic relationship to the Fine Arts from the middle ages through the twentieth century. In addition it aims to show how the various arts responded to each other in the pattern of cultural history. No prerequisite courses are required, but a rudimentary background in music or art is desirable. Offered when faculty available.

MUS. 453: MELODIC IMPROVISATION 2 s.h.

The course is designed to provide the advanced music student with fundamental concepts of improvisational techniques which may be applied to the development of skills for the invention and performance of improvised melodies. Prerequisite: Mus. 135, 136, 235, 236, or equivalent theoretical background. Offered when faculty available.

MUS. 461: ADVANCED STRING TECHNIQUES AND PEDAGOGY 2 s.h.

Prerequisites: Mus. 261 or 262 or permission of instructor.

MUS. 462: ADVANCED WOODWIND TECHNIQUES AND PEDAGOGY. 2 s.h.

Prerequisites: Mus. 261 or 262 or permission of instructor.

MUS. 463: ADVANCED BRASS TECHNIQUES AND PEDAGOGY. 2 s.h.

Prerequisites: Mus. 265 or 266 or permission of instructor.

MUS. 464: ADVANCED PERCUSSION TECHNIQUES AND PEDAGOGY 2 s.h.

Prerequisites: Mus. 267 or permission of instructor.

This sequence of courses constitutes further study of the symphonic instruments. Specialized techniques which are employed by each instrumental family will be presented and mastered (strings, woodwinds, brasses, percussion). Sufficient technique will be developed by the student to enable him to introduce and teach these instruments successfully at the elementary or secondary level. The courses will include methods, materials, manufacturers, suppliers, repairmen, and procedures for private, homogeneous and heterogeneous group instruction; studio teaching and management; musicianship and creativity as part of the lesson; planning for various grade levels; history of teaching and study of leading methods.

MUS. 490: INDEPENDENT STUDY 1-3 s.h.

Opportunity to explore, in depth, an area of music of particular interest under the guidance of a faculty member. A scholarly paper or special project(s) will be required for credit and grade. Prerequisite: Permission of the instructor and department chairman.

NURSING

ASSOCIATE DEGREE

NURS. 101: FUNDAMENTALS OF NURSING 8 s.h.

This course introduces the student to Nursing, Man* and Health, which are basic concepts to the Nursing Process. Emphasis is placed on the wholeness of man and how he relates with his environment by meeting his basic needs according to their priority. Clinical experience is provided for the student to develop beginning competencies in those technical skills necessary to carry out the prescribed nursing care plan and medical regimen. Four lecture and twelve laboratory or clinical experience hours weekly. Fall, annually.

NURS. 102: PARENTAL AND CHILD HEALTH NURSING 4 s.h.

The concept of family as the basic unit of society is stressed in assisting the family during the normal maternal cycle and development of the infant through the first year. The family unit is emphasized in assisting the client with evolving health goals. Adaptations of nursing care to meet family needs rising from alterations in the normal health situation are also presented. Two lecture and six clinical experience hours weekly. Prerequisites: Biology 258, Psychology 211; minimum grade of C in Nursing 101. Spring, annually.

NURS. 103: INTRODUCTION TO THE NURSING PROCESS 4 s.h.

This course introduces the student to the fundamentals of the Nursing Process. Opportunities are provided for the student to develop expertise in assessment, planning, implementation, and evaluation, the four components of the Nursing Process. Each aspect of the Nursing Process is studied in depth as the student uses health goals. Two lecture and six clinical experience hours weekly. Prerequisites: Biology 258, Psychology 211; minimum grade of C in Nursing 101. Spring, annually.

NURS. 201: NURSING PROCESS I 8 s.h.

This course enables the student to increase his knowledge and understanding of the wholeness of man and his right to freedom of choice. Emphasis is placed on using the Nursing Process and working with clients and their families. Opportunities are provided for the student to develop competencies in those technical skills necessary to carry out the prescribed nursing care plan and medical regimen. The primary focus is upon establishing priority of needs according to Maslow and mobilizing resources of the client and family in the decision making process. Four lecture and twelve clinical experience hours weekly. Prerequisites: Biology 258 and 251; Psychology 211 and 260; minimum grade of C in Nursing 101, 102 and 103. Fall, annually.

NURS. 202: NURSING PROCESS II 8 s.h.

Nursing Process II is a logical extension of Nursing Process I, offering additional opportunities for the student to develop expertise in specific technical skills. The Nursing Process is used by the student in assisting the client and family in establishing health goals and developing a plan of care. Opportunity is provided for the student to work as a member of the health team in the hospital and designated community agencies. Four lecture and twelve clinical experience hours weekly. Prerequisites: Biology 258, 259, 260; Psychology 211, 260; minimum grade of C in Nursing 101, 102, 103 and 201. Spring, annually.

NURS. 203: NURSING SEMINAR 2 s.h.

A brief study of historical developments introducing the student to the aspect of change in the nursing profession. Current issues and trends are discussed at length, emphasizing the

*The term "man" refers to homo sapiens.

changing roles of the nurse in the health field. Discussion includes opportunity to study in depth selected topics of interest. Prerequisites: minimum grade of C in Nursing 101, 102, 103 and 201. Spring, annually.

NURS. 457: LEADERSHIP SKILLS IN NURSING 3 s.h.

This course will introduce registered nurses to the concepts of change, group process, management, organization, and evaluation. The application of the above concepts will be the nursing unit, including paramedical personnel. Open to new nursing graduates or registered nurses. On demand.

SCHOOL NURSING

NURS. 351: PUBLIC SCHOOL NURSING 3 s.h.

An orientation to Pennsylvania's school health services is provided. The course demonstrates the nurse's responsibility in relation to the three main health obligations of the school: healthful school living, health instruction, and health services. Personal qualifications, professional preparation and functions of school nurse are outlined. Areas of study include health appraisal, health counseling, communicable disease control, emergency care, preventive procedures, and rehabilitation. Prerequisite: must have an R.N. degree. Summer, 1980.

NURS. 352: SPECIAL HEALTH PROBLEMS OF SCHOOL AGED CHILDREN 3 s.h.

This course covers a wide range of physical, social, and emotional problems common to school age children that prevent good school attendance or participation in the total school program. The nurse's responsibilities toward special community health concerns such as drug, tobacco, and alcohol consumption; unwed mothers; venereal disease; sex education; and juvenile delinquency are studied. Emotional health, hearing, and vision problems are stressed in class. Ways of adapting the school program to meet the needs of the handicapped are illustrated. Summer, 1981.

NURS. 353: FAMILY CASEWORK 3 s.h.

Counseling in the area of school and family inter-related health problems is focused on the family. Interviewing and counseling techniques are reviewed. Selected case materials demonstrate methods of motivating the family to initiate appropriate care by utilizing available resources and the relationship of family health to community improvement is considered. Summer, 1980.

NURS. 354: PUBLIC HEALTH NURSING 3 s.h.

This course includes a brief introduction to the organization, administration, and coordination of public health services and describes the process used by the public health nurse in delivering various specialized health services to her patient, the family. Emphasis is placed on current public health problems and the nurse's community responsibilities. Field trips to and guest speakers from official and non-official agencies are part of the course. Prerequisite: R.N. degree. Summer, 1981.

PHILOSOPHY

PHIL. 111: ELEMENTARY LOGIC 3 s.h.

Principles of correct reasoning; principles of deductive and inductive inference and scientific method; use and misuse of language in reasoning. Each semester.

PHIL. 112: SYMBOLIC LOGIC 3 s.h.

A study of the essential elements of symbolic logic including Boolean expansions, truth tables (symbolic proofs), the logic of relation, quantification rules, the properties of deductive

systems, and propositional calculus. Special attention is given to the theoretical contributions of Carnap, Quine, and Russell. Spring 80-81 and alternate years.

PHIL. 211: INTRODUCTION TO PHILOSOPHY 3 s.h.

Inquiry into the persistent problems of philosophy, primarily those concerning man, nature and God. Prerequisite: sophomore standing. Each semester.

PHIL. 212: ETHICS 3 s.h.

Examination of the problems of value and moral standards with a view toward developing an appreciation of the nature of the moral life. Each semester.

PHIL. 215: MAJOR RELIGIOUS PHILOSOPHIES 3 s.h.

Examination of the religious philosophies which have their origins in the Far and Near East, in particular Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. Spring 80-81, and alternate years.

PHIL. 255: ANCIENT PHILOSOPHY 3 s.h.

Thinkers from the Ancient Greeks up to the Renaissance, with special attention to Plato, Aristotle, Augustine, and Aquinas. Fall 1979, and alternate years.

PHIL. 256: MODERN PHILOSOPHY 3 s.h.

Thinkers from the Renaissance to the 19th Century, with special attention to Descartes, Spinoza, Hume, Kant, and Hegel. Prerequisite: Philosophy 255 is recommended. Spring 1981, and alternate years.

PHIL. 258: CONTEMPORARY EUROPEAN PHILOSOPHY 3 s.h.

A study of European men and movements since 1850. Spring 1981, and alternate years.

PHIL. 259: CONTEMPORARY ANGLO-AMERICAN PHILOSOPHY 3 s.h.

A study of Anglo-American men and movements since 1900. Philosophy 450 is recommended. Spring 1980, and alternate years.

PHIL. 350: PHILOSOPHY OF RELIGION 3 s.h.

Inquiry into the nature and validity of religious knowledge; the nature and existence of God; the nature of man and human destiny. Fall 80-81, and alternate years.

PHIL. 352: EPISTEMOLOGY 3 s.h.

Concepts and problems involved in the appraisal of certain types of human knowledge: perception, knowledge and belief, and truth. On demand.

PHIL. 353: METAPHYSICS 3 s.h.

Inquiry into some of the fundamental philosophical concepts: being, substance, matter, mind, and God. Prerequisite: 6 credit hours in Philosophy. On demand.

PHIL. 354: AESTHETICS 3 s.h.

Study of some of the aesthetic theories from Plato to the present; nature of the aesthetic experience; principles of criticism in literature and the arts. Fall, annually.

PHIL. 355: PHILOSOPHY OF SCIENCE 3 s.h.

Methods and procedures of reliable knowledge in the formal, natural, and social sciences. Prerequisite: Philosophy 111 is recommended. Fall, annually.

PHIL. 356: ORIENTAL PHILOSOPHY 3 s.h.

Significant contributions to philosophical and religious thought in the Near East, India, China, and Japan. Fall 1979, and alternate years.

PHYSICS

PHY. SCI. 112: BASIC PHYSICAL SCIENCE: PHYSICS AND ASTRONOMY 3 s.h.

This course is intended for those students not majoring in the sciences or mathematics, and does not presume any prior familiarity with the subject. Topics discussed are descriptive astronomy, cosmology, light and optics, force and motion, fundamental electrical phenomena and simple circuits, the special theory of relativity, and radioactivity and the atom. Brief experiments are integrated with the subject matter to emphasize the experimental basis of theory. The Planetarium is extensively used in conjunction with the sections of astronomy. No prerequisites. Each semester.

PHY. 251: GENERAL PHYSICS I 4 s.h.

This is a general course in mechanics, heat, and sound. Topics studied include the mechanics of solids, liquids, gases, thermometry, calorimetry, heat transferences, and the production and nature of sound waves including musical sound. Designed for non-physics majors. Includes laboratory. Prerequisite: Algebra. Each fall.

PHY. 252: GENERAL PHYSICS II 4 s.h.

This is a continuation of Phy. 251, a general course in electricity, magnetism, light, and atomic physics. Topics discussed include general concepts of magnetism, electrostatics, electrical circuits, alternating currents, optical instruments, reflection, refraction, interference, spectra, and some basic concepts of atomic structure. Designed for non-physics majors. Includes laboratory. Prerequisite: Algebra. Each spring.

PHY. 258: INTRODUCTORY PHYSICS LECTURE I 4 s.h.

This is an introductory physics course designed for physics majors. The course includes mechanics, heat, and sound. Phy. 268 must be taken concurrently by physics majors. Prerequisite: Math 171, which may be taken concurrently. Each fall.

PHY. 268: INTRODUCTORY PHYSICS LABORATORY I 1 s.h.

This laboratory complements Phy. 258, and should not be scheduled by students who are not also enrolled in Phy. 258. Experiments performed in this laboratory include free-fall, momentum and energy, wave phenomena, heat and temperature. Also included is the technique of writing the formal scientific report. Each fall.

PHY. 259: INTRODUCTORY PHYSICS LECTURE II 4 s.h.

This is a continuation of Phy. 258, an introductory course in physics designed for Physics majors. This course includes electricity, magnetism, light, and atomic physics. Phy. 269 must be scheduled concurrently with Phy. 259 by Physics majors. Prerequisite: Phy. 258. Each spring.

PHY. 269: INTRODUCTORY PHYSICS LABORATORY II 1 s.h.

This laboratory complements Phy. 259, and should not be scheduled by students who are not also enrolled in Phy. 259. Experiments performed in this laboratory include current, potential, resistance and impedance measurements, use of the oscilloscope, image formation by lenses and mirrors, diffraction gratings, lasers, Geiger-Muller detectors, and the measurement of radioactive half-life. Each spring.

PHY. 351: MECHANICS 3 s.h.

This is an intermediate course in the mechanics of solids, liquids and gases. Studies are made of rectilinear and curvilinear motion, work and energy, impulse and momentum, and oscillatory motion. Prerequisites: Phys. 252 or 259; Math. 350; Fall, 1979, 1981.

PHY. 352: ELECTRICITY AND MAGNETISM 3 s.h.

An immediate course in electricity and magnetism. Vector analysis techniques are used for studying various areas of electrostatics and considerable emphasis is placed on A.C.

circuit theory. Maxwell's equations for the electromagnetic field are derived. Prerequisites: Phy. 252 or 259; Math. 350. Fall, 1978, 1980.

PHY. 353: ATOMIC PHYSICS 3 s.h.

An intermediate course on the electronic structure of the atom, including Bohr theory, Quantum Theory, and Vector Model. Optical and X-ray spectra, the Special Theory of Relativity, and the Uncertainty Principle are among the topics studied. Prerequisites: Phy. 252 or 259, Math. 172, with Math 271 concurrently. Fall, 1978, 1980.

PHY. 354: OPTICS 3 s.h.

This is an intermediate course in geometrical and physical optics. Topics include thin lenses, thick lenses, interference, diffraction, polarization, color theory, and the study of spectra. Prerequisites: Phy. 252 or 259; Math. 271, with Math. 272 concurrently. Spring 1980, 1982.

PHY. 355: NUCLEAR PHYSICS 3 s.h.

An introduction to the study of the atomic nucleus, including natural and artificial radioactivity, decay schemes, nuclear reactions, nuclear models, fission, fusion, and nuclear energy. Prerequisites: Phy. 353; Math. 272. Spring, 1979, 1981.

PHY. 356: HEAT 3 s.h.

This is an intermediate course in heat. The basic concepts and principles are developed more intensively in the study of properties of gases and in thermodynamics. Some of the specific topics studied are temperature measurements, thermal expansion, specific heat, thermal conductivity of solids and liquids, thermal properties of gases, change in phase, and heat engines. Prerequisite: Phy. 252 or 259; Math. 272. Spring, 1980, 1982.

PHY. 357: INTRODUCTION TO THE THEORY OF THE SOLID STATE 3 s.h.

The course will include the study of two- and three-dimensional space groups, Miller indices, crystalline structure of various types, X-ray diffraction, lattice vibrations, Einstein and Debye theories of heat capacity of conduction electrons. Fermi-Dirac distribution law, and the transport properties of metal. Prerequisite: Phy. 353. Spring, 1979.

PHY. 370: EXPERIMENTAL PHYSICS 2 s.h.

This course complements Phys. 351, 352, 353, 354, and 355, offering a wide range of intermediate-to advanced-level experiments in Mechanics, Electricity, Optics, Atomic and Nuclear Physics. In addition to laboratory work, the student will investigate background and related material in the library journal collections, and obtain practice in journalistic-style report writing. The laboratory is highly individualized, each student moving at his own pace and working in those areas of Physics appropriate to his academic experience. Prerequisites: Junior-senior standing, and at least two of the following courses: Phy. 351, 352, 353, 354, 355 must be completed or co-registered. This course may be taken twice, with different experimental content, for credit. Fall 1978, 1979.

PHY. 453: INDEPENDENT STUDY IN PHYSICAL MEASUREMENTS 2 to 6 s.h.

This is a course in the theory and use of precision measuring devices covering most of the areas of Physics. Experiments are devised to fit the background and needs of the individual student, exploiting the equipment from all of the various special laboratories of the Physics Department. The student will work from three to six hours each week on experimental projects, according to the credit he elects upon consultation with his advisor.

PHY. 455: ELECTRONICS 3 s.h.

This course includes the analysis of circuits containing passive devices: resistors, capacitors, and inductors; as well as study of active devices: vacuum tubes and transistors. The uses of these devices in communications and industry are studied. Prerequisites: Phy. 252, or 259. Fall 1979, 1981.

PHY. 457: DEMONSTRATION IN PHYSICS 3 s.h.

This course is designed for the secondary education major in physics. Preparation and performance of classroom demonstrations for use in secondary schools are stressed. Prerequisites: Phy. 252 or 259. On demand.

PHY. 460: INTRODUCTION TO MATHEMATICAL PHYSICS 3 s.h.

This course uses the techniques of vector calculus and differential equations with occasional introduction of topics of complex variables, calculus of variations and Fourier Series to treat problems of mechanics, electricity, and other areas of physics at a level intended to prepare the physics major for graduate-level work. Prerequisites: Phy. 351, 352, 353, 354, of which two may be taken concurrently with Phy. 460; Math. 272, 350; senior standing. On demand.

PHY. 461: SEMINAR 1 s.h.

The physics seminar consists of mastering the techniques of literature-survey and library research on specific topics, together with the preparation and presentation of formal reports of a research nature. Prerequisites: senior standing, science major. On demand.

POLITICAL SCIENCE

P.S. 210: INTRODUCTION TO POLITICAL SCIENCE 3 s.h.

The underlying assumptions, varying methods, and differing conclusions of normative and empirical political analysis compared and contrasted by analyzing examples of both approaches. Each semester.

P.S. 211: AMERICAN GOVERNMENT 3 s.h.

The study of the general principles of the American system of constitutional government; special emphasis is placed upon the organization and functions of the national government — legislative, executive, and judicial. The rights and duties of citizenship, the electorate, political parties, civil rights, and the growing regulatory function of government are carefully treated. Each semester.

P.S. 311: GOVERNMENT AND POLITICS OF SOUTHEAST ASIA 3 s.h.

The constitutional development and the process of political modernization in Thailand, Burma, Indonesia, Malaysia, Vietnam (North and South), Cambodia, and the Philippines. Every other year.

P.S. 351: STATE AND LOCAL GOVERNMENT 3 s.h.

Deals mainly with a detailed study of how our state and local governments function. Emphasis is placed on Pennsylvania government. Independent study through outside projects is one of the requirements of this course. Every other year.

P.S. 352: INTERNATIONAL POLITICS 3 s.h.

This course presents a framework for analyzing the behavior of states, the basic factors which motivate and affect international policies, and the techniques of resolving international conflicts. Every other year.

P.S. 353: INTERNATIONAL ORGANIZATION 3 s.h.

This course deals with international organizations, both historically and analytically. Emphasis is placed on configurations that induce state behaviors leading to resolution of international conflicts and to the solution of common problems. Every third year.

P.S. 354: CONSTITUTIONAL LAW OF THE UNITED STATES 3 s.h.

A study of the development of the Constitution through the interpretations of the Supreme Court. This includes a study of the separation of governmental powers, political and judicial

processes, federalism as a legal device, and the relationship of liberty and authority to the individual living under government. Prerequisite: P.S. 211. Spring, annually.

P.S. 355: POLITICAL PARTIES AND ELECTIONS 3 s.h.

A survey course with emphasis on the study of the electorate, pressure groups, and public opinion, nature and history of political parties, party organization, methods of nominations, and elections. Special attention is given to the place of political parties and elections as instruments of democracy and their place in the framework of Pennsylvania's government. Fall, annually.

P.S. 365: ANCIENT AND MEDIEVAL POLITICAL THOUGHT 3 s.h.

The development of political theory from Plato to Machiavelli. Every year.

P.S. 366: MODERN POLITICAL THOUGHT 3 s.h.

The development of political theory from Renaissance humanism to twentieth-century totalitarianism. Every year.

P.S. 375: PUBLIC ADMINISTRATION 3 s.h.

An introduction to the study of public administration with emphasis on its function in the American political process. Every other year.

P.S. 451: COMPARATIVE GOVERNMENT 3 s.h.

A consideration of the problem inherent in comparing political systems with emphasis on the British, French, and Soviet political systems. Every year.

P.S. 458: ENGLISH CONSTITUTIONAL HISTORY 3 s.h.

A consideration of constitutional government in England from the beginning of English history to the present. The study of governmental powers, political and judicial processes, and the relationships of liberty and authority to the individual living under the government is included. Every other year.

P.S. 490: COMPARATIVE FOREIGN POLICIES 3 s.h.

Concepts for analysis of internal and external factors in making foreign policies. Emphasis will be placed on the foreign policy of the United States, the Soviet Union, The United Kingdom, France, and China. No prerequisites. Every third year.

PSYCHOLOGY

PSY. 211: GENERAL PSYCHOLOGY 3 s.h.

Study is made of the general subject matter of psychology, its methods and procedures and its major findings. Areas of particular stress include genetic inheritance, development, learning, emotions and motivation, sensation and perception, and social aspects of behavior. Each semester.

NOTE: Psychology 211 is a prerequisite for all of the following courses:

PSY. 225: PSYCHOLOGY OF ADJUSTMENT 3 s.h.

This course emphasizes the psychodynamics of "normal" social adjustment and enables each student to explore his own self-identity, his social relationships, and his interactions with his environment. Problems of personality, mechanisms of adjustment, the origin and resolution of conflicts, and the role of emotion in behavior are studied. Each semester.

PSY. 228: HUMAN BEHAVIOR IN ORGANIZATIONS 3 s.h.

A survey of the application of psychological theory, techniques, and research to organizations. The psychological principles of selection, training, attitudes, motivation, job satisfaction, job evaluation, and performance are analyzed. No prerequisite. Fall, annually only at Venango Campus.

PSY. 230: INTRODUCTORY STATISTICS FOR THE BEHAVIORAL SCIENCES 3 s.h.

An introduction to descriptive and inferential statistical methods and theory as applied to data from the behavioral sciences. Lecture and laboratory work. Each semester.

PSY. 251: EXPERIMENTAL PSYCHOLOGY 3 s.h.

This course aims to acquaint the student with psychological experimentation and its methodology, particularly in the area of psychophysics. Subjects of experimentation include sensation, perception, illusions, learning, etc. Particular attention is given to the appropriate style of writing research reports. Psy. 230 is a prerequisite for Psychology majors; concurrent registration is permitted with consent of instructor. Each semester.

PSY. 260: DEVELOPMENTAL PSYCHOLOGY 3 s.h.

Study of the development of human behavior from conception through infancy, childhood, adolescence, adulthood, and old age. Special attention is given the physical, emotional, intellectual, and social aspects of development. Each semester.

PSY. 321: PSYCHOLOGY OF ADOLESCENCE 3 s.h.

The physical, intellectual psychosocial, and cultural bases of adolescent behavior are studied as these relate to peers, home, school, and community. Each semester.

PSY. 322: EDUCATIONAL PSYCHOLOGY 3 s.h.

A study of the psychological foundations of education and the application of principles and methods of psychology to problems of learning and teaching. Each semester.

NOTE: Credit toward the psychology major or minor will not be granted for this course.

PSY. 331: CHILD PSYCHOLOGY 3 s.h.

Study of the child from birth through pre-adolescence. Topics include the physical, social, emotional, and intellectual development of children, the relationship of heredity to environment, personality development, attitudes toward self and others. Each semester.

PSY. 332: PSYCHOLOGY OF EXCEPTIONAL CHILDREN AND YOUTH 3 s.h.

This course introduces the student to the nature and characteristics of the blind, the deaf, the crippled, speech defectives, the mentally handicapped, the gifted, and the socially maladjusted. It aims to promote a functional understanding of the psychological implications of their behavior and its treatment as well as the guiding principles necessary to aid them in their learning processes. Once annually.

PSY. 340: PSYCHOLOGY OF WOMEN 3 s.h.

Empirical and theoretical concepts from all areas of psychology provide a base for the study of the changing role of women and the psychological effects upon the individual. Topics include sex-role development and consequences, women's alternative roles, women in relation to their bodies, a social-psychological analysis of the women's movement, and mental health considerations. Fall, annually.

PSY. 350: INDUSTRIAL PSYCHOLOGY 3 s.h.

This course is concerned with personality factors and individual differences in relation to success in business and industry. The psychological principles involved in advertising, selling, personnel selection and management, mental and physical efficiency, intelligence, motivation, fatigue, and the environmental setting are among those analyzed. Prerequisite: Statistics — Psy. 230, Econ. 220, or Math. 221. Spring, annually.

PSY. 354: ABNORMAL PSYCHOLOGY 3 s.h.

A survey is made in this course of the principal forms of the behavior disorders with emphasis on their etiology, diagnosis, prognosis, and treatment. Each semester.

PSY. 355: SOCIAL PSYCHOLOGY 3 s.h.

Study is made in this course of the interpersonal relations of man and how these are affected by society's norms and values. Each semester.

PSY 356: SYSTEMATIC PSYCHOLOGY 3 s.h.

In this course the major theoretical systems of modern psychology are examined and critically evaluated. Fall, annually.

PSY. 360: CURRENT TOPICS 3 s.h.

This course focuses on a single, broad, contemporary issue of current interest in psychology and related fields of study. Course content varies from semester to semester. May be taken three times for credit. Once, annually.

PSY. 393: INDEPENDENT STUDY 1-3 s.h.

An opportunity for the student to explore an area of special interest in depth for variable credit under the supervision of a member of the department and with approval of the chairman. Open to juniors and seniors.

PSY. 452: PHYSIOLOGICAL PSYCHOLOGY 3 s.h.

Examination is made in this course of the basic physiological mechanisms underlying behavior with special emphasis upon the functions of the nervous and endocrine systems as these relate to sensation, perception, emotion, and learning. Each semester.

PSY. 454: PERSONALITY 3 s.h.

Systematic study is made of the development, dynamics, and structure of the self-system together with a critical comparison of the major theories of personality. Spring, annually.

PSY. 455: LEARNING AND MOTIVATION 3 s.h.

A critical survey is made of the outstanding attempts to understand and explain the nature of the learning process. Emphasis is placed on a comparison of current theories and their implications when applied to forms of learning and motivation from the simple to the complex. Fall, annually.

PSY. 456: INTRODUCTION TO PSYCHOLOGICAL TESTING 3 s.h.

This course will provide in-depth coverage of the Wechsler scales, wide range achievement tests, selected personality measures, objective and projective, and the Reitan-Halstead Neuropsychological Test Battery. Using actual case material the student will experience the process involved in diagnostic decision making. Fall, annually.

PSY. 458: SENSATION AND PERCEPTION 3 s.h.

The sensory-perceptual processes will be studied with a view to understanding their structural properties and their role in the psychological functioning of man. Particular emphasis will be placed on vision and hearing and the differences within and between human individuals. Fall, even numbered years.

PSY. 459: COMPARATIVE PSYCHOLOGY 3 s.h.

A study of the underlying genetic and biological controlling mechanisms of animal and human behavior. Special emphasis given to role of evolution and natural selection in the development of behavior adaptations, and to behavioral comparisons between species. Fall, annually.

PSY. 460: BEHAVIOR THERAPY 3 s.h.

This course will introduce students to the nature of behavior therapy, its conceptual and

empirical foundations and its clinical applications to a variety of symptoms and in a variety of settings. While not designed to train behavior therapists, it is intended to sensitize students to the responsiveness of human behavior to environmental change. Prerequisites: Psy. 211 and 455.

PSY. 464: INTRODUCTION TO CLINICAL PSYCHOLOGY 3 s.h.

Following an experiential-cognitive format, students will learn the basic helping skills of accurate empathy, nonjudgmental permissiveness and genuineness as applied both to dyadic and group contexts. Prerequisites: Psy. 354 and 456. Each semester.

PSY. 465: RESEARCH SEMINAR 3 s.h.

This course affords students the opportunity to continue the study of research techniques. Each student, with the approval of the instructor, will undertake a research project in the area of his choice. The work will culminate in a paper of distinguished quality. Prerequisites: Psy. 251 and permission of instructor.

PSY. 499: SUPERVISED FIELD EXPERIENCE 3 s.h.

Under supervision students are placed in such field settings as mental health clinics, family services, etc., where they acquire observational experience with the application of helping skills in the human services. May be repeated once for credit and requires a 10 hour time commitment per week. Prerequisites: Permission of instructor, junior standing, and Psy. 464. Open to any student majoring in a human service health related area. Each semester.

Psy. 211, General Psychology, is a prerequisite for all other Psychology courses.

RUSSIAN

In addition to the courses listed below, students of Russian have an opportunity to study for a summer, a term, or an entire academic year in the USSR.

RUSS. 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments on the European intellectual scene will be covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject of each semester offering will be announced in pre-registration. Open to all students of the college without prerequisites and may be taken up to three times for credit provided that different topics are offered. On demand.

RUSS. 109: RUSSIAN LITERATURE IN TRANSLATION 3 s.h.

Synoptic studies of major works by Russian writers of the 19th or 20th century with particular emphasis on philosophical ideas, literary methods, and characters which have had a considerable influence upon Russian and other literatures. The course concentrates on comparative studies, with class discussion, reading, and lectures. No prerequisites: Conducted in English. Offered occasionally.

RUSS. 151: RUSSIAN I (ELEMENTARY I) 4 s.h.

Essentials of grammar with emphasis on aural comprehension and oral expression, with extensive use of the language laboratory. Fall, annually.

RUSS. 152: RUSSIAN II (ELEMENTARY II) 4 s.h.

Continuation of Russian 151, with increasing emphasis on graded reading material. Prerequisite: Russian 151 or consent of the instructor. Spring, annually.

RUSS. 251: RUSSIAN III (INTERMEDIATE I) 4 s.h.

Systematic review of basic grammar; graded readings; conversation; translation; and composition on selected topics. Prerequisite: Russian 152 or two years of high school study and/or satisfactory placement test score. Fall, annually.

RUSS. 252: RUSSIAN IV (INTERMEDIATE II) 4 s.h.

Intensive reading of selected works; outside reading, with oral and/or written reports. Prerequisite: Russian 251 or a satisfactory placement test score. Spring, annually.

RUSS. 253: SCIENTIFIC RUSSIAN 2 s.h.

A study of scientific terminology and style, with extensive readings in various scientific fields. Prerequisite: Russian 251 or equivalent. Science and mathematics majors may substitute this course for Russian 252.

RUSS. 255: RUSSIAN CIVILIZATION I 3 s.h.

A survey of the geography, history, literature, and culture of the Soviet Union designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful, and integral part of a great civilization. Prerequisite Russian 252 or four years of high school study and/or a satisfactory placement test score.

RUSS. 256: RUSSIAN CIVILIZATION II 3 s.h.

A survey of the geography, history, literature, and culture of the Soviet Union designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful, and integral part of a great civilization.

RUSS. 351: ADVANCED GRAMMAR AND COMPOSITION 4 s.h.

Intensive oral and written drill, with emphasis on finer points of grammar, and colloquial and idiomatic usage. English-to-Russian translation, free composition, and conversation on everyday topics.

RUSS. 352: INTRODUCTION TO RUSSIAN LITERATURE 3 s.h.

Synoptic studies of literary history from the beginning to the present, and discussions on the main trends in Russian thought and its literary expression. Emphasis will be placed on the development of the Russian novel and drama during the Golden and the Silver ages of Russian literature, 19th and 20th century, and prominent writers of the Soviet period.

RUSS. 353: THE RUSSIAN DRAMA 4 s.h.

Dramatic works of the 19th and 20th centuries in poetry and prose. Studies of stylistics and themes, with special emphasis on the works by Anton Chekhov.

RUSS. 354 THE RUSSIAN NOVEL 4 s.h.

The great Russian novelists of the 19th and 20th centuries: Gogol, Turgenev, Dostoevsky, and Tolstoy. Major literary movements and philosophies. Epic character of Russian prose and evolution of the genre, poetic prose.

RUSS. 355: READINGS IN SOVIET AND RUSSIAN LITERATURE 4 s.h.

A survey of Russian literature since the Revolution, from 1917 to the present. New political mood, changes, and socialist realism.

RUSS. 361: DOSTOEVSKY 4 s.h.

Synoptic studies of the life and works of Dostoevsky, with emphasis on his great novels: *Crime and Punishment*, *The Idiot*, *The Possessed*, and *The Brothers Karamazov*. Comparative and contrastive analysis of ideas in major works.

RUSS. 451: SUPERVISED READINGS IN RUSSIAN 4 s.h.

This course is devoted to selected readings determined in relation to the needs and interests of individual students.

SAFETY EDUCATION

SE 211: GENERAL SAFETY EDUCATION 3 s.h.

The development of habits and attitudes that are conducive to safe living by both teachers and students. Acquaintance with 1. rules, regulations, and laws concerning the operation of motor vehicles; 2. rules and regulations of pedestrian travel; 3. other hazards to which we are commonly subjected, such as fire, electricity, etc., especially in the home and school. Fall, annually.

SE 212: ORGANIZATION AND ADMINISTRATION OF SAFETY EDUCATION 3 s.h.

A consideration of procedures and problems related to the organization and administration of safety education in the public school. Spring, even numbered years.

SE 213: METHODS AND MATERIALS FOR TEACHING SAFETY IN THE SECONDARY SCHOOLS 3 s.h.

The study of evaluative techniques, content, methods, and teaching aids in the program of safety education in the secondary schools. Spring, odd numbered years.

SE 214: PSYCHOLOGY OF ACCIDENT PREVENTION 3 s.h.

Relates the achievement of behavior consistent with safe living to the psychological factors and techniques essential in the learning process. A review of the literature and experimentation relative to proneness to accidents, effect of alcohol on drivers, reaction times, etc. On demand.

SE 351: DRIVER EDUCATION AND TRAFFIC SAFETY 3 s.h.

Classroom instruction combined with road training and the teaching of driving to beginners using dual control cars. Emphasis is placed upon the essential facts, principles, skills, and attitudes necessary for good driving and the teaching of same to beginning drivers. Ability to use and interpret the results of psycho-physical testing is required. Each semester.

SCIENCE AND SCIENCE EDUCATION

PH. SC. 111: BASIC PHYSICAL SCIENCE: CHEMISTRY* 3 s.h.

This course is intended for non-science majors and does not assume prior familiarity with chemistry. It does not count toward requirements for science majors, but can be applied to fulfill the general education math-science requirements for non-science majors.

Selected chemical principles are explored with the purpose of providing a background that will enable the student as a citizen to understand issues involving the interaction of science and society; brief experiments are often included. Students who prefer a more traditional chemistry course may elect either Chemistry 151 or 153 to fulfill their general education requirements. No prerequisites: Each semester.

PH. SCI. 112: BASIC PHYSICAL SCIENCE: PHYSICS AND ASTRONOMY 3 s.h.

This course is intended for those students not majoring in the sciences or mathematics, and does not presume any prior familiarity with the subject. Topics discussed are descriptive astronomy, cosmology, light and optics, force and motion, fundamental electrical phenomena and simple circuits, the special theory of relativity, and radioactivity and the atom. Brief experiments are integrated with the subject matter to emphasize the experimental basis of theory. The Planetarium is extensively used in conjunction with the sections on astronomy. No prerequisites. Each semester, plus summer.

*No student may take, for credit, a chemistry course at the 100 level after having successfully completed any chemistry course numbered 300 or above.

PH. SCI. 211: SOUND, MUSIC AND ACOUSTICS 3 s.h.

This course is primarily designed for the student majoring in Music or in a discipline in which the Physics of Sound is of considerable importance. Topics include the basic physics of wave motion, superposition of waves, transverse and longitudinal waves, diffusion, diffraction and reflection, intensity, quality, and harmonic analysis of sound waves, reverberation and absorption, sound production by musical instruments and the voice, noise and harmony, factors in hearing, and the electronic recording and reproduction of sound. Spring, annually

PH. SCI. 457: INTRODUCTION TO ELECTRONICS FOR AUDIO APPLICATIONS 3 s.h.

A survey of basic electricity and the physics of sound, with fundamental electronics. The course is intended to give the student an understanding of basic electronics used in audio applications, especially testing and trouble-shooting equipment. It is primarily intended for students in speech pathology and audiology, as an elective for both undergraduate and graduate students. Fall, annually.

SCIENCE EDUCATION

SCI. ED. 322: TEACHING OF ELEMENTARY SCIENCE 3 s.h.

Methods of presenting science in the elementary school. Experiences are provided in learning process, scope and sequence of science concepts, methods of investigation, problem solving, laboratory skills, scientific attitudes, newer curricula, reading materials, observing and working with elementary school children, developing, teaching and evaluating lessons. 2 hour lecture and 2 hours laboratory weekly. Each semester.

SCI. ED. 331: BIOLOGICAL INVESTIGATIONS 3 s.h.

This course is designed to provide the prospective teacher with a more adequate background in biology and laboratory experiences applicable to science teaching. The course has three aspects: (1) identification and natural history of local flora and fauna, (2) application of basic biological principles, and (3) development of skills necessary to carry out biological investigations. Each semester.

SCI. ED. 456: ELECTRONICS FOR THE HIGH SCHOOL SCIENCE TEACHER 4 s.h.

The course is intended for the science teacher who has had little or no previous course work in physics or mathematics. The subjects covered include the fundamental laws of electricity and magnetism, alternating current theory, and the theory and practical application of such devices as ammeters, voltmeters, oscilloscopes, vacuum tubes, transistors, power suppliers, amplifiers, and oscillators. Examples of some of these devices will be built in the laboratory, and general procedures for trouble-shooting faulty equipment will be illustrated. Summer only, on demand.

SCI. ED. 460: SCIENCE CURRICULA IN THE JUNIOR HIGH SCHOOL 3 s.h.

A course designed to acquaint students with modern science curricula for the junior high/middle school levels. Recent developments in curricular objectives, science content, teaching strategies, and laboratory activities are stressed. Curricula will include ISCS, ISCP, ISIS, OBIS, IPS, ESCP, and others. Fall, annually.

SCI. ED. 463: ASTRONOMY: OBSERVATION AND FIELD STUDIES 3 s.h.

This is a course in the experimental tools and methods useful in astronomy. It is not an encyclopaedic survey of astronomy, but concentrates on mastery of important techniques and concepts by a "do-it-yourself" process. It complements courses in descriptive astronomy (E.S. 353 and Sci. Ed. 550) rather than duplicating them, serving much the same purpose as a laboratory in astronomy. The student will build simple telescopes, spectroscopes, and other astronomical instruments. Summer only.

SCI. ED. 466: FIELD PHOTOGRAPHY 3 cr.

This course is designed to teach the student how to use a modern camera and accessories to photograph subjects in the field. Techniques of close-up, telephoto and wide-angle photography as well as film development, lighting, use of filters and composition will be included. In addition, the student will have a chance to learn and practice techniques for photographing such subjects as small animals, birds, flowers, large animals, and other field subjects. Camera and film to be provided by students. Each summer, on demand.

SCI. ED. 485: PLANETARIUM OPERATION AND MANAGEMENT 3 s.h.

An introduction to the techniques of operation and maintenance of planetarium projectors. Opportunities are provided for writing and presenting programs at various levels of instruction. The use of auxiliary projectors, the production of audio-visual materials, multi-media displays, and live versus programmed presentations are emphasized. Prerequisite: E.S. 353 or consent of instructor. Summer only.

SOCIOLOGY AND SOCIAL WORK

SOC. 211: PRINCIPLES OF SOCIOLOGY 3 s.h.

This is the basic course in sociology dealing with the interaction arising from the association of human beings. Emphasis is placed upon social heritage; the meaning and functions of culture; the characteristics of major social institutions. Each semester.

SOC. 300: INTRODUCTION TO SOCIOLOGICAL RESEARCH 3 s.h.

An introduction to the social research process and the methods of sociology, including the logic and methods of science; fundamental research methodologies, designs and strategies; basic techniques of data collection, organization, analysis and presentation. Prerequisites: Sociology 211; 3 hours in statistics; or permission of the instructor. Once annually.

SOC. 321: SOCIOLOGY OF WORK 3 s.h.

A study of occupational and organizational work settings, meaning of work, work and society. The final weeks emphasize selected work settings. Prerequisite: Sociology 211 or Anthropology 211. Once annually.

SOC. 351: CONTEMPORARY SOCIAL PROBLEMS 3 s.h.

This course deals with problems that affect the integration and functioning of society as a whole. Such topics are community control, "the sick cities," and mass culture, as well as selected aspects of economic concern. Prerequisite: Sociology 211 or permission of the instructor. Once annually.

SOC. 352: THE FAMILY 3 s.h.

This course deals with the development of the family and the home in its historical, economic, and legal aspects. The various factors influencing the organization, disorganization, and reorganization of the family as well as the modern trends in the basic institution are considered. Prerequisite: Sociology 211 or permission of the instructor. Once annually.

SOC. 361: SOCIOLOGY OF DEVIANT BEHAVIOR 3 s.h.

The course examines deviance as a constant social phenomenon, as well as forms of behavior which may be classified as deviant, especially in terms of American society. Emphasis will be given not only to the nature and forms of deviance, but also to reactions and orientations to deviance on the part of the deviant and of the larger society. Prerequisite: Sociology 211 or permission of the instructor. Once annually.

SOC. 362: RACIAL AND ETHNIC MINORITY PROBLEMS 3 s.h.

Background of racial and ethnic minority group relations. Contemporary aspects of inter-ethnic and inter-racial group problems. Proposals for alleviating and resolving problems and their implications. Prerequisite: Sociology 211 or permission of the instructor. Once annually.

SOC. 363: URBAN SOCIOLOGY 3 s.h.

Study of urban communities, their composition, structure, and development in relation to other types of communities. The growth of mass urban society, population shifts and trends, and their implications for basic social institutions. Special emphasis upon contemporary urban problems and proposals of urban planners and community developers to meet them. Prerequisite: Sociology 211 or permission of the instructor. Once annually.

SOC. 370: FUNDAMENTALS OF POPULATION STUDY 3 s.h.

A study of factors influencing the quality and quantity, distribution, growth, and movement of populations. An examination of population trends and the implication for social problems and social policy. Prerequisites: Sociology 211 or permission of the instructor. On demand.

SOC. 380: COMMUNITY INSTITUTIONS 3 s.h.

Analysis and study of the nature of community from a sociological perspective focusing on the structure, functions, and interrelationships of its institutions and theories of community organization and development. Once annually.

SOC. 395: SOCIAL CHANGE 3 s.h.

Analysis of social change processes through study of major theories of social change and recent investigations in the general area of social change. Examination of major social forces and movements shaping contemporary patterns of social change, e.g., industrialization, rationalization, urbanization. Studies of the impact of inventions, discoveries, revolutions, reform movements and attempts to direct the course of change through various types of planning and development programs. Prerequisites: Soc. 211 or permission of the instructor. Fall, annually.

SOC. 400: INDEPENDENT STUDY IN SOCIOLOGY 3 s.h.

Concentrated exploration and study of a problem or area of sociology not covered by existing courses and in accord with the student's interests and needs and under the direction of department faculty member. Prior to enrolling in the course, students are required to submit a written proposal outlining their plan of study for the instructor with whom they will be working. Enrollment limited to juniors and seniors with consent of the instructor. Maximum number of credits in Soc. 400 is limited to 9.

SOC. 499: SUPERVISED FIELD STUDY 3 s.h.

With the approval and under the supervision of a member of the faculty in sociology, students are placed in field-work settings, e.g., child welfare agencies, offices of aging, divisions of the criminal justice system, community development agencies, etc., where they will observe and work with persons responsible for carrying out a range of specific human services. Requires a ten-hour time commitment each week. Prerequisites: permission of instructor, junior standing, and six hours in sociology.

SOCIAL WORK 311: PRINCIPLES OF SOCIAL WORK 3 s.h.

An overview of social work focusing on the historical development, major fields of practice and their application to social welfare issues and institutions. Prerequisites: Sociology 211 and either Sociology 351 or 363 or consent of the instructor. Fall, annually.

SOCIAL WORK 312: SOCIAL WORK WITH GROUPS 3 s.h.

A study of the practice of groupwork, one of the core methods of social work, with emphasis on strategies used in various social work settings. Spring, annually.

SPANISH

In addition to the courses listed below, students of Spanish have an opportunity to study for a summer, a term, or an entire academic year in Spain and/or Mexico.

SPAN. 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Historical and contemporary developments on the European intellectual scene will be covered by experts on individual countries with regard to their relevance for the present American student generation.

The special subject of each semester offering will be announced in pre-registration. Open to all students of the college without prerequisites and may be taken up to three times for credit provided that different topics are offered. On demand.

SPAN. 151: SPANISH I (ELEMENTARY I) 3 s.h.

Essentials of grammar with emphasis on aural comprehensions and oral expression, with extensive use of the language laboratory. Each semester.

SPAN. 152: SPANISH II (ELEMENTARY II) 3 s.h.

Continuation of Spanish 151, with increasing emphasis on graded reading material. Prerequisites: Spanish 151 or consent of the instructor. Spring, annually.

SPAN. 153: ELEMENTARY SPANISH CONVERSATION 3 s.h.

Conversational practice, with extensive oral drill of grammatical patterns. Designed for those students who have met the prerequisites for Spanish 251 but are lacking in aural-oral proficiency. May be taken concurrently with Spanish 251. Fall, annually.

SPAN. 251: SPANISH III (INTERMEDIATE I) 3 s.h.

Systematic review of basic grammar; graded readings, conversation, translation, and composition on selected topics. Prerequisite: Spanish 152 or two years of high school study and/or a satisfactory placement test score. Fall, annually.

SPAN. 252: SPANISH IV (INTERMEDIATE II) 3 s.h.

Intensive reading of selected works; outside reading, with oral and/or written reports. Prerequisite: Spanish 251 or a satisfactory placement test score. Spring, annually.

SPAN. 253: COMMERCIAL SPANISH 3 s.h.

A study of commercial terminology and style, with extensive practice in the writing of business letters of various kinds. Prerequisite: Spanish 251 or equivalent. Economics and business administration majors may substitute this course for Spanish 252. Spring, annually.

SPAN. 255: HISPANIC CIVILIZATION I 3 s.h.

A survey of Hispanic geography, history, literature, and culture designed to equip teachers with the materials and understanding necessary to the presentation of the language as rich, meaningful and integral part of a great civilization. Prerequisite: Spanish 252 or four years of high school study and/or a satisfactory placement test score. Required of Spanish majors. Fall, annually.

SPAN. 256: HISPANIC CIVILIZATION II 3 s.h.

Continuation of Spanish 255, which is, however, not prerequisite. Spring, annually.

SPAN. 300: SPANISH LITERATURE IN TRANSLATION 3 s.h.

A study of representative Spanish literary works, with particular emphasis on the characters and ideas which have influenced both Spanish and other literatures. The course is conducted in English; no knowledge of Spanish required; no prerequisites. On demand.

SPAN. 350: ADVANCED CONVERSATION AND COMPOSITION 3 s.h.

Intensive oral and written drill, with emphasis on colloquial and idiomatic usage. Prerequisite: Spanish 351. Alternate years.

SPAN. 351: ADANCED SPANISH GRAMMAR AND COMPOSITION 3 s.h.

Intensive written drill, with emphasis on finer points of grammar, colloquial, and idiomatic

usage. English-to-Spanish translation and free composition on everyday topics. Prerequisites: Spanish 255 and 256 or a literature course. Fall, annually.

SPAN. 352: INTRODUCTION TO SPANISH LITERATURE 3 s.h.

Study and discussion of the main trends in Spanish thought and literary expression. Emphasis is placed on the development of the novel and drama during the Golden Age. Fall, 1980.

SPAN. 353: THE MODERN SPANISH DRAMA 3 s.h.

A study of the modern theater in Spain, with emphasis on Benavente, García Lorca, Casona, Buero Vallejo, and López Rubio. Fall, 1979, 1981.

SPAN. 354: THE MODERN SPANISH NOVEL 3 s.h.

The development of the novel in Spain during the 19th and 20th centuries, with emphasis upon the discussion of realism, regionalism, and naturalism. Spring, 1980, 1982.

SPAN 355: THE "GENERATION OF 1898" 3 s.h.

Discussion of the principal authors of this group and their influence on 20th century Spanish thought, with an analysis of the role played by historical events in the development of the movement. Spring, 1981.

SPAN. 359: THE LITERATURE OF THE GOLDEN AGE 3 s.h.

A survey of the greatest period of Spanish literature, with selected readings from Cervantes' *Don Quixote* and the plays of Lope de Vega, Tirso de Molina, Calderón, and Ruiz de Alarcón. Alternate years.

SPAN. 360: SURVEY OF SPANISH-AMERICAN LITERATURE 3 s.h.

Study and discussion of the evolution of Spanish-American literary expression from the colonial period to the Twentieth Century. Alternate years.

SPAN. 361: THE HISTORY OF MEXICAN LITERATURE 3 s.h.

The history of Spanish literature in Mexico from the Conquest to the present, with special emphasis on Lizardi, Altamirano, the novelists of the Revolution, and selected contemporary writers. Alternate years.

SPAN. 451: SUPERVISED READINGS IN HISPANIC LITERATURE 3 s.h.

This course is devoted to selected readings determined in relation to the needs and interests of the individual major. On demand.

SPECIAL EDUCATION

SP. ED. 210: HUMAN EXCEPTIONALITIES 3 s.h.

The course is a study of the causes, characteristics, and implications — educational, social, and vocational — of children who are exceptional because of intelligence, physical development, behavior, vision, hearing, and speech. It also acquaints prospective professional personnel with vocational opportunities in Special Education and Rehabilitation. Each semester.

SP. ED. 215: HUMAN RELATIONS SKILLS TRAINING 2 s.h.

The course deals with human relations skills in special education settings in both public schools and community settings. Each semester.

SP. ED. 220: NATURE OF MENTAL RETARDATION 3 s.h.

This is a comprehensive study of the biological, psychosocial, and educational implications of retarded mental development, including a consideration of etiology; assessment and diagnosis; educational programs, including preschool and postschool; adult

social and vocational adjustment; national and local programs; and research. Prerequisite: Sp. Ed. 210. Each semester.

SP. ED. 225: EARLY FIELD EXPERIENCES 1 s.h.

An early exposure to types of special education programs for various types of exceptional individuals including community programs, institutions, and schools. Each semester.

SP. ED. 230: BEHAVIOR DISORDERS 2 s.h.

This course will familiarize the student with atypical behaviors using coexistent classification systems. Causation, evaluation, and rehabilitation will be studied with an emphasis on the limitations and responsibilities of various professionals and paraprofessionals. Offered at Venango Campus only.

SP. ED. 235: LEARNING DISORDERS 2 s.h.

A study of the causes and characteristics of learning disorders. Concerns of diagnosis, prescription, and classroom management are presented, with an emphasis on the role of the paraprofessional. Offered at Venango Campus only.

SP. ED. 240: THE PHYSICALLY HANDICAPPED 3 s.h.

The course presents the major physical anomalies, the reaction of family and individual to the handicap, therapeutic procedures, rehabilitation services, and direct contacts with persons in programs for the handicapped. Prerequisite: Sp. Ed. 210. Each semester.

SP. ED. 245: BEHAVIOR MANAGEMENT 2 s.h.

This experience provides persons with knowledge and skills to analyze instructional settings, organize learners for instruction, and maintain a supportive learning climate for handicapped individuals. Offered at Venango Campus only.

SP. ED. 250: THE HELPING RELATIONSHIP: PRINCIPLES AND PROCEDURES 3 s.h.

This course shall assist students to acquire knowledge and skill in the performance of required tasks and/or roles of Habilitative Service staff in developing humanizing environments for exceptional persons in various settings. Prerequisites: Sp. Ed. 210, 220, 230, 235. Offered at Venango Campus only.

SP. ED. 295: FIELD EXPERIENCE 6 s.h.

This is a half-time, full semester field experience in selected programs. The field experience will focus on assisting in the delivery of human/educational services to exceptional individuals. Prerequisites: Minimum of 45 semester hours and Sp. Ed. 230, 235, 250. Offered at Venango Campus only.

SP. ED. 400: SPECIAL TOPICS 1–6 s.h.

This course deals with topical themes in Special Education to expand the knowledge and competence of teachers. Enrollment is by consent of the instructor. Summers only.

SP. ED. 405: LEARNING AND BEHAVIORAL DISORDERS 3 s.h.

The nature of central nervous system anomalies and aberrant patterns of emotional development are observed and analyzed with concern for their diagnostic, educational, and rehabilitation implications. Prerequisite: Sp. Ed. 220. Each semester.

SP. ED. 410: EDUCATIONAL APPRAISAL AND PRESCRIPTION I 4 s.h.

This experience is conducted in the psychoeducational clinic of the Special Education Center and involves observation and active participation in educational diagnostic/prescriptive processes with persons who have learning problems. Prerequisite: Sp. Ed. 405. Each semester.

SP. ED. 415: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES FOR MILDLY/MODERATELY HANDICAPPED 6 s.h.

This is the study of the process of individualizing instruction for children with mild to moderate learning handicaps. It involves designing basic instructional sequences utilizing behavioral objectives, matching media and learner and goal-characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Prerequisite: Sp. Ed. 405. Each semester.

SP. ED. 420: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES FOR SEVERELY/PROFOUNDLY MULTIHANDICAPPED 6 s.h.

This is a study of the process of individualizing instruction for children with severe to profound learning handicaps. It involves designing basic instructional sequences utilizing behavioral objectives, matching media with learner and goal-characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Prerequisite: Sp. Ed. 405. Each semester.

SP. ED. 425: BEHAVIOR MANAGEMENT IN SPECIAL EDUCATION SETTINGS 2 s.h.

This course considers contemporary curricular innovations in educational programs for exceptional children and youth, with particular attention to the sociocultural implications of changing curricular practices and the new instructional media and technology. Each semester.

SP. ED. 430: TEACHING/LEARNING STRATEGIES 1 s.h.

This course is designed to expand the understanding of the teaching-learning process by observation and application, focusing upon the development of advanced skills in the analysis of teacher behaviors, learner behaviors, and classroom interactions and their implications. Prerequisite: Sp. Ed. 415. Each semester.

SP. ED. 450: STUDENT TEACHING 12 s.h.

Observation and participation in teaching children with retarded mental development and in activities related to the performance of a teacher's work. Each semester.

SP. ED. 460: HABILITATION RESOURCES AND PROCESSES FOR EXCEPTIONAL INDIVIDUALS 3 s.h.

This is a study of programs and populations in institutions and communities which offer services to exceptional individuals to increase participation in personal, social, and vocational activities. Prerequisite: Sp. Ed. 405. Each semester.

SP. ED. 495: FIELD EXPERIENCE AND PRACTICUM IN HABILITATIVE SERVICES 15 s.h.

This course consists of a full semester of 2 nine-week field experiences and a weekly practicum-seminar. Each field experience will be in an appropriate institutional or community setting concerned with the management or delivery of services to handicapped persons. The seminar will deal with technical and legal problems in the delivery of life-management services. Prerequisites: Minimum of 80 s.h. and Sp. Ed. 240, 420, and 460. Each semester.

SP. ED. 499: INDEPENDENT STUDIES IN SPECIAL EDUCATION 1-3 s.h.

This course is designed to provide students with an opportunity to explore an area of special need or interest in Special Education in depth under the supervision of a faculty member of the department. Students must develop a proposed study plan and secure the approval of the department chairman prior to registration. Prerequisite: Junior or senior standing.

SPEECH COMMUNICATION AND THEATER

SCT 113: FUNDAMENTALS OF SPEECH 3 s.h.

Study, application, and evaluation of principles of organization, evidence, reasoning, critical thinking, verbal and nonverbal behavior, one-way and two-way communication, and small group interaction in the oral communication setting; emphasis upon meeting the individual needs of students through individualized instruction utilizing communication experiences. Each semester.

SCT 114: ADVANCED PUBLIC SPEAKING 3 s.h.

Inquiry into and practice in the principles of effective public speaking. Detailed analysis of the areas of invention, arrangement, style, and delivery, and an introduction to speech criticism as a tool to improve the speaker's own abilities. Prerequisite: consent of instructor. Each semester.

SCT 115: PARLIAMENTARY PROCEDURE 1 s.h.

A study of the principles and applications of the standard parliamentary rules used in conducting formal meetings of social, civic, and political bodies. Fall, annually.

SCT 120: THEATER PLAY PRODUCTION 3 s.h.

Introductory work in elements of theater, including directing, acting, make-up, criticism, stagecraft, and stagelighting. No prerequisites. Students may not take both SCT 120 and SCT 350 for credit. Fall, even numbered years.

SCT 200: COMMUNICATION THEORY AND PROCESSES 3 s.h.

This course for prospective teachers of communication in secondary schools provides a survey of the nature and function of the communication process and an introduction to various communicative arts. Each semester.

SCT 201: MOVEMENT AND DANCE FOR THE STAGE 3 s.h.

This course is devoted to fundamental movement and creative dance for the actor. Emphasis is on period styles of movement and creative dance for musical theater presentations. Use of body movement exercises for performance, discipline and non-verbal communicative forms are also encompassed. Each semester.

SCT 210: INTRODUCTION TO RHETORICAL THEORY 3 s.h.

The course is designed to investigate, on a fundamental level, the historical and conceptual developments of the major theories of rhetorical discourse. Spring, odd number years.

SCT 215: SPECIAL TOPICS IN SPEECH COMMUNICATION AND THEATER 3 s.h.

This course focuses on offering special topics reflecting the interest of students. The course content varies from semester to semester. Suitable for both majors and non majors in Speech Communication and Theater. May be taken three times for credit. On demand.

SCT 225: THE RHETORIC OF CONFRONTATION 3 s.h.

This course introduces the beginning student of rhetorical theory to the tools for analysis of those individuals and groups which seek change in the political and social sphere, outside the normal decision-making process. Spring, even numbered years.

SCT 230: CROSS CULTURAL COMMUNICATION IN AMERICA 3 s.h.

This course is designed to introduce the student to communication through an examination of the cognitive dimensions, divergent language codes, social pressures and feedback on the intra-personal, inter-community and cross cultural levels. Fall, annually.

SCT 251: VOICE AND ARTICULATION 3 s.h.

The objective of this course is to help students improve their speech by the elimination of faulty voice and articulation habits. Attention is given to such basic skills as vocal variety, projection, breath control, tone production and articulation. Tape recordings are used as a helpful device for analyzing problems and noting progress. Each semester.

SCT 252: SPEECH COMMUNICATION IN THE ELEMENTARY CLASSROOM 3 s.h.

A survey course designed to acquaint the prospective teacher with speech concepts and activities. Subjects covered in the area of speech science are: speech anatomy, phonetics, language acquisition, and normal and abnormal speech problems. The areas included in the creative or expressive arts are: choral reading, oral interpretation, story telling, puppetry, creative dramatics, theater for children, speaking and listening, and discussion. On demand.

SCT 253: INTRODUCTION TO THE THEATER 3 s.h.

A study of the techniques and contemporary practices in the organization of dramatic material, survey of division of labor for creation of dramatic material, and an analysis of the literary concepts, such as realism and existentialism, that motivate the contemporary audience. Each semester.

SCT 254: PRINCIPLES OF ACTING I 3 s.h.

Principles and techniques of movement, stage direction, pantomimic dramatization, characterization development, and interpretation through improvisations and playing roles in scenes from contemporary dramas. Fall, annually.

SCT 255: STAGECRAFT AND LIGHTING 3 s.h.

Study and practice in scene construction, scene painting, theater equipment, the basic technical elements of stage electricity, and instrumentation operation and selection. Fall, annually.

SCT 256: ARGUMENTATION AND DEBATE 3 s.h.

Principles of reasoned discourse and their application to controversial issues. Fall, annually.

SCT 257: ADVANCED DEBATE 2 s.h.

Further experience in competitive debating and in a variety of debating forms is provided. Prerequisite: Consent of instructor. Spring, even numbered years.

SCT 258: USE OF VIDEOTAPE IN EDUCATIONAL DEBATE 2 s.h.

Utilization of the videotape technique to improve the debating skills of the student. Applications of videotaping to debating, including exchange debates with other colleges and possibly international exchanges. Use of videotape as a technique for teaching debate. Consideration of experimental possibilities of the videotape process. Prerequisite: SCT 256, or consent of instructor. On demand.

SCT 264: DISCUSSION 3 s.h.

Designed to develop the attitudes, skills, and knowledge of methods favorable to effective participation and leadership in discussion by conferences, committees, and other small groups. Spring, annually.

SCT 300: COMMUNICATION IN ORGANIZATIONS 3 s.h.

This course is designed to give insight into traditional and modern concepts of channels of communication in simple and complex organizations with emphasis on informal and formal group dynamics, interpersonal relationships, leadership, communication theory, and creativity. Considerable attention is given to interviewing. Each semester.

SCT 301: ADVANCED MOVEMENT AND DANCE FOR THE STAGE 3 s.h.

The course is an extended study of the principles of movement control as begun in beginning Movement and Dance. The course of study begins with the basic principles of breathing, tension-relaxation exercises and theater movement exercises. The course then moves into areas of intermediate ballet exercises, period style movement and ballroom, soft-shoe and tap dancing. Spring, annually.

SCT 311: PERSUASION 3 s.h.

Study and practice in persuasive speaking. General theories of persuasion, the role of persuasion in a democratic society, and an introduction to modern experimental research in the area included. Spring, odd numbered years.

SCT 312: GENERAL SEMANTICS 3 s.h.

An investigation of the relationship between words and the realities they represent. Special emphasis will be given to an understanding of a personal, political, and international problems that arise due to semantic breakdowns in the communication process. Fall, annually.

SCT 333: SUMMER DIRECTION OF FORENSICS WORKSHOP 3 s.h.

A two week course designed to introduce the college student to high school debate and individual events. The course orients the college student to coaching and directing high school debate and individual events as well as administering forensic tournaments. Application is provided by a coinciding non-credit high school workshop. The student will be concentrating in either debate or individual events, with the option of taking the course on a second occasion to gain concentration in the area not previously studied. Prerequisite: At least 2 of the following: SCT 113, 114, 256, 257, 258, or consent of the instructor. May be taken on two separate occasions for a maximum of 6 credits. Summer, annually.

SCT 350: SUMMER DRAMA WORKSHOP 6 s.h.

The summer drama workshop combines study and practice in the dramatic arts and includes formal, intensive study in acting, play production, direction, makeup, scene design, stage lighting, and stagecraft. In conjunction with the workshop, Clarion State College sponsors a Summer Theatre Company consisting of members of the workshop which produces major shows. Summer, annually.

SCT 351: ADVANCED THEATER PRODUCTION 6 s.h.

Advanced study and practice in the dramatic arts, including projects in scene design, theater management and acting. Students will work with members of the Summer Drama Workshop in the production of major plays for the Clarion Summer Theater. Prerequisites: SCT 120 or 350. Summer, annually.

SCT 352: PLAY DIRECTING 3 s.h.

A study of the fundamentals and procedures of play directing and problems faced in educational theater, including analysis of the script, methods of casting, and rehearsal. Students direct one-act plays for public presentation. Fall, annually.

SCT 354: INTRODUCTORY INTERPRETATION 3 s.h.

The course emphasizes the understanding and appreciation of literature through developing skill in reading aloud. Help is given in selecting, analyzing, and preparing literature for presentation. Each semester.

SCT 358: PSYCHOLOGY OF SPEECH COMMUNICATION 3 s.h.

This is a theoretical survey course which examines the psychological aspects of communication codes, interpersonal communication, structural communication and the interaction of mediated communication. Spring, annually.

SCT 359: HISTORY OF THE THEATER 3 s.h.

History of plays and playwrights from the fifth century B.C. to the present. Spring, annually.

SCT 361: PRINCIPLES OF ACTING II 3 s.h.

A study of period styles of acting, speech, and movement which include the Classic Shakespearean, Commedia, Restoration, Romantic, and Early American Periods. Spring, annually.

SCT 362: PRINCIPLES OF STAGE DESIGN 3 s.h.

Study and practice in the aesthetics, methods, and techniques of setting and lighting design for the theater. Covers both period and contemporary analysis. Fall, annually.

SCT 363: THEATRICAL COSTUME AND MAKE-UP 3 s.h.

Fundamentals and application of stage make-up. Fall, semiannually, odd numbered years.

SCT 364: SCENE PAINTING FOR STAGE 3 s.h.

Studio instruction in the use of brushwork and pigment to develop landscape, ornament, panelling, and architectural detail in stage scenery based on the analysis of form and source of light. Fall, odd numbered years.

SCT 365: ACTING FOR TELEVISION 3 s.h.

Designed to acquaint the student with the visual and oral techniques of movement, voice and characterization required for television productions. Prerequisite: acting students enrolled in the BFA program or instructor's consent. Spring annually in conjunction with Comm. 660: TV Production.

SCT 410: ADVANCED DIRECTING 3 s.h.

This course deals with advanced problems in stage directing, with a focus on period styles and modes of staging. Students direct performances of representative scenes from classical drama and musical comedy. Prerequisite: SCT 352 and/or consent of instructor. Spring, odd numbered years.

SCT 412: BRITISH PUBLIC ADDRESS 3 s.h.

Study of the rise of public speaking in Great Britain and its influence on the course of history in that democracy, both in and out of Parliament. Includes the study of the speaking of Lord Chatham, Burke, Fox, Pitt, Sheridan, Gladstone, Disraeli, and Churchill. For juniors and seniors. On demand.

SCT 453: APPLIED PHONETICS 3 s.h.

An analysis of the speech sound used in English so that the student develops auditory acuity and correct reproduction of sounds; transcripts of spoken material using I.P.A. and diacritical marking. On demand.

SCT/COMM. 454: RADIO AND TELEVISION 3 s.h.

An introduction to the broadcasting industry including stations, networks, the Federal Communications Commission, advertisers and agencies, the public, and the impact of broadcasting as an entertainment, informational, and educational medium. A foundation course for communications study and the development of knowledgeable consumers of the broadcast media. Fall, annually.

SCT 455: CREATIVE DRAMATICS FOR ELEMENTARY TEACHERS 3 s.h.

A study of the techniques and theory of playmaking. Study of dramatic activities for children including story telling, story dramatization, rhythms, and pantomime. Designed for the elementary teacher, the course provides an opportunity to teach children. Spring, annually.

SCT 458: PLAYWRITING 3 s.h.

Principles of play construction. Analysis of historical and contemporary dramas. Preparation of original scripts. Designed to meet the interests and abilities of individual students. On demand.

SCT 465: ADVANCED INTERPRETATION 3 s.h.

Inquiry into the advanced techniques of the oral interpretation of poetry. Emphasis upon analysis and style. Prerequisite: SCT 354. Fall, annually.

SCT 468: INTERPRETATION OF PROSE FICTION 3 s.h.

Practice in the oral expression of the dynamics of narrative prose fiction. Specifically, it will afford the student of interpretation an in-depth experience which focuses on gaining performance skills and developing knowledge of archetypal themes. Prerequisite: SCT 354. Spring, annually.

SCT 490: INDEPENDENT STUDY 1-3 s.h.

Selected topics for research and/or performance projects in Speech Communication and Theater. Prior to registration students need to obtain an advisor who will direct their study. Approval by appropriate dean required.

SCT 491: INDEPENDENT STUDY 1-3 s.h.

Same as SCT 490.

SPEECH PATHOLOGY AND AUDIOLOGY

SPA 450: SPEECH SCIENCE I 3 s.h.

This course studies models of the speech mechanism. Normal aspects of the physiology and acoustics of speech production are strongly emphasized. Fall, annually.

SPA 451: ANATOMY OF SPEECH AND HEARING MECHANISMS 3 s.h.

Study of the anatomy and physiology of the speech and hearing mechanisms. Fall, annually.

SPA 452: SPEECH PATHOLOGY I 3 s.h.

This course is an introduction to the profession of Speech Pathology emphasizing the description, diagnosis and treatment of voice, articulation, and stuttering disorders. Fall, annually.

SPA 453: SPEECH PATHOLOGY II 3 s.h.

This course emphasizes the description, diagnosis, and treatment of aphasia, cleft palate, and cerebral palsy. Spring, annually.

SPA 454: CURRICULUM MATERIALS FOR SPEECH CORRECTION 3 s.h.

Teaching techniques, source materials, visual aids, and special techniques to be employed in speech pathology are studied. Fall, annually.

SPA 455: SPEECH CORRECTION FOR THE CLASSROOM TEACHER 3 s.h.

Designed to acquaint students with speech problems common to children on the elementary level. Emphasis is placed on the study of materials, methods, and techniques used by the classroom teacher in improving the speech of all children. On demand.

SPA 456: SPEECH SCIENCE II 3 s.h.

Transcription of normal and deviant speech using the International Phonetic Alphabet. Application of phonetics and phonemics to language and speech pathology. Instruments used in speech and hearing are studied. Spring, annually.

SPA 457: DEVELOPMENTAL SEQUENCES IN LANGUAGE AND SPEECH 3 s.h.

This course is a study of the development of language and speech in the normal child. Normative data in speech and language development are studied. Each semester.

SPA 458: LANGUAGE DISORDERS IN CHILDREN 3 s.h.

This course is designed to provide students with an understanding of language disorders in children, etiological factors associated with them, diagnostic and evaluative techniques, and therapeutic methodologies Prerequisite: SPA 457. Spring, annually

SPA 460: HEARING PROBLEMS 3 s.h.

The nature of hearing disorders and the audiological, medical, social, psychological, and educational implications are investigated. Fall, annually.

SPA 463: SPEECH READING AND AUDITORY TRAINING 3 s.h.

A comprehensive study of auditory rehabilitation with emphasis upon auditory training, speech reading, and speech retraining. Prerequisite: SPA 460. Spring, annually

SPA 464 AUDIOLOGY 3 s.h.

A continuation of SPA 460 Hearing Problems. Prerequisite: SPA 460. Spring, annually.

SPA 468: SPEECH AND HEARING CLINIC I: PRACTICUM 3 s.h.

Supervised clinical observation and practice in case study and conferences, diagnostic evaluations, remedial procedures, parent conferences, and reporting The application theory in the development of clinical skills with individuals and small groups of children and adults, for 135 clock hours. Prerequisite: SPA 452. Each semester.

SPA 469: SPEECH AND HEARING CLINIC II: ADVANCED PRACTICUM 3 s.h.

A continuation of SPA 468. On demand

SPA 472: SEMINAR IN SPEECH SCIENCE 3 s.h.

This course begins with a review of the speech mechanism as a servosystem and transducer, and basic knowledge of the physics of sound. The remainder of the course focuses attention and is structured on the concept that the speech mechanism is a chain of events physiologically, acoustically, and perceptually Each link in this chain of events is studied in terms of basic knowledge, pertinent research, and each link's contribution to the speech chain as a whole. Prerequisite: SPA 465 or a basic course in phonetics and/or speech science. Fall, annually.

SPA 422: STUDENT TEACHING WITH THE SPEECH AND HEARING HANDICAPPED 6 or 12 s.h.

Observation of and participation in school and clinic environments. Each semester.

SPA 498: SPECIAL TOPICS 1-6 s.h

Topics in various areas of Speech Pathology and Audiology. The format used will be selected by the professor as most suitable to the study. The course may be offered on request of students, subject to the availability of staff. Enrollment by consent of the instructor. On demand.

SPA 499: INDEPENDENT STUDIES IN SPEECH PATHOLOGY AND AUDIOLOGY 1-3 s.h.

This course is designed to provide students with an opportunity to explore an area of

special need or interest in Speech Pathology and Audiology in depth under the supervision of a member of the department. Students must develop a proposed study plan and secure the approval of the proposed director and department chairperson prior to registration. Prerequisite: Junior or senior standing. Repeatable for a maximum of 6 s.h.

ENROLLMENT AT CLARION STATE COLLEGE

Enrollment is almost equally divided between men and women and is drawn from the sixty-seven counties of the Commonwealth. Each year the number of students from states other than Pennsylvania increases and there is a small but encouraging representation from foreign countries.

An analysis of the enrollment in August, 1978, showed the following counties contributing substantial numbers of students to Clarion.

Adams	20	Lackawanna	12
Allegheny	909	Lancaster	43
Armstrong	91	Lawrence	68
Beaver	141	Lebanon	13
Bedford	7	Lehigh	46
Berks	26	Luzerne	15
Blair	17	Lycoming	23
Bradford	10	McKean	73
Bucks	27	Mercer	190
Butler	120	Mifflin	14
Cambria	45	Monroe	7
Cameron	14	Montgomery	49
Carbon	7	Montour	6
Centre	14	Northampton	22
Chester	41	Northumberland	17
Clarion	500	Perry	1
Clearfield	126	Philadelphia	82
Clinton	3	Pike	4
Columbia	12	Potter	4
Crawford	119	Schuylkill	5
Cumberland	36	Snyder	7
Dauphin	40	Somerset	20
Delaware	31	Sullivan	4
Elk	89	Tioga	5
Erie	163	Union	11
Fayette	24	Venango	473
Forest	25	Warren	67
Franklin	13	Washington	92
Greene	6	Wayne	3
Huntington	4	Westmoreland	217
Indiana	23	Wyoming	2
Jefferson	146	York	42
Juniata	4		

Clarion State College, Clarion, Pennsylvania

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Year in parentheses indicates year of appointment to faculty

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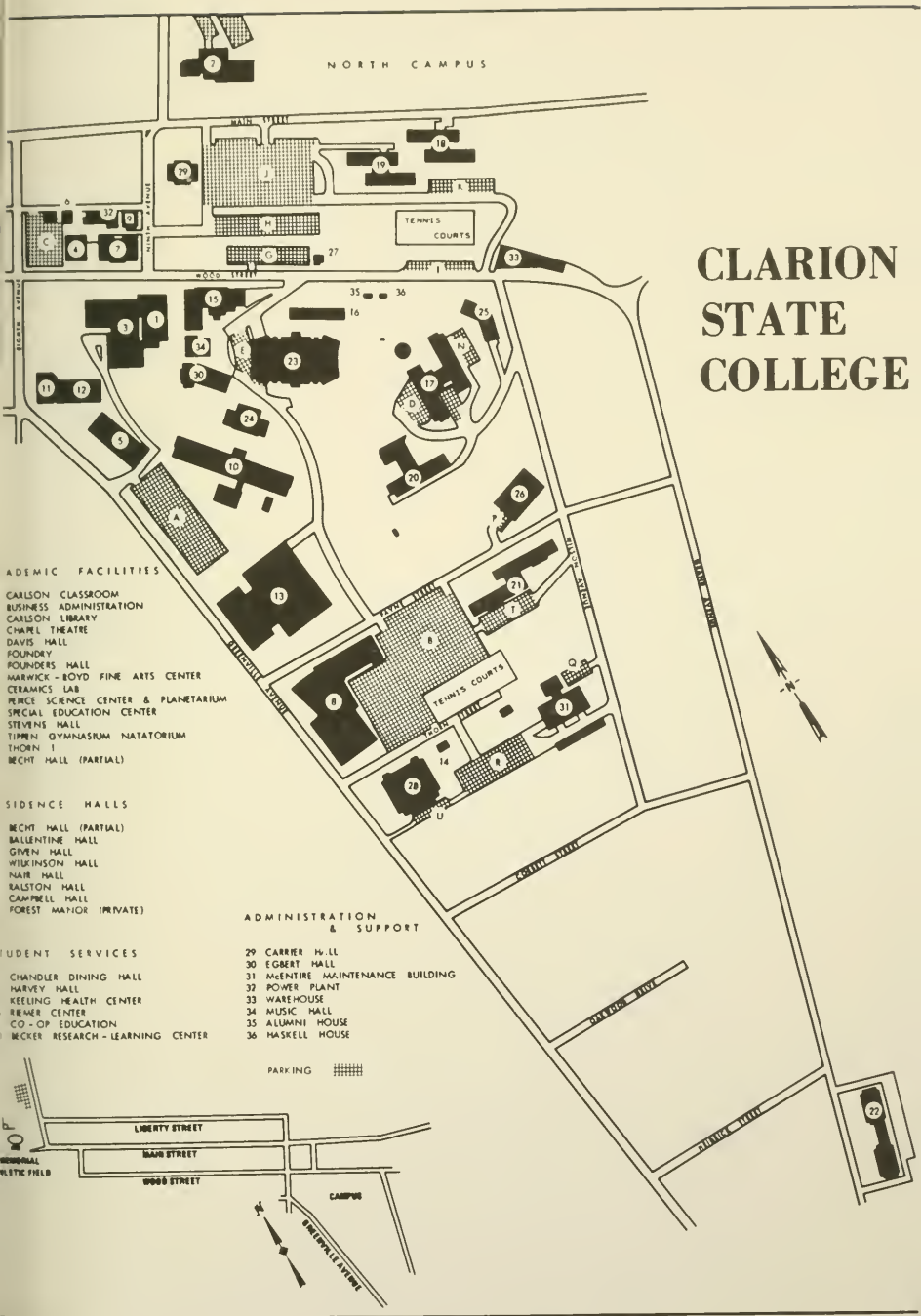
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